TRADE DEPRESSION AND THE WAY OUT

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BY

R. G. HAWTREY

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"MONETARY RECONSTRUCTION," "THE GOLD STANDARD"
"ECONOMIC ASPECTS OF SOVEREIGNTY," ETC.

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PREFACE.

THE first edition of this work was written in August, 1931, and appeared on the 17th September, three days before the suspension of the gold standard by Great Britain was announced. Whereas it was then no more than a pamphlet, in this new edition it has been expanded to the dimensions of a book. That has been required partly by the mere narrative of events that have since occurred, but partly also by a considerable elaboration of the argument, particularly in the discussion of over-production and non-monetary theories of the depression.

Nevertheless, the position taken has not been materially changed. I advocate, as I advocated two years ago, an expansion of credit to be accomplished through the purchase of securities in the open market by central banks. The main difference is that whereas then I was dealing with the problem within the limits of the gold standard, now the suspension of the gold standard, first by Great Britain and then by the United States, has given a new freedom to monetary policies. And American experience has been supplying a vivid illustration of how this freedom can be used.

Advocates of the monetary theory of trade depressions are often accused of recommending a panacea

which is too simple for a situation complicated by many and various economic ills. But that is a misunderstanding. The monetary theory offers an explanation of *one* important class of economic disorders, and indicates the remedy for them. It does not pretend that a community perfectly free from monetary fluctuations would have no economic disorders at all.

If an otherwise prosperous valley suffers from floods, an engineer who can prevent the floods is in a position to remedy what may be the most urgent of all the economic troubles of the community, but that does not mean that there will be no others, or that he claims to bring a panacea.

Some passages in Chapters X. and XI. (pp. 128-39 and 181-3) have been taken from a paper on "Public Expenditure and Trade Depression," which I read to the Royal Statistical Society in April, 1933 (see the Society's *Journal*, Part III., p. 438).

What I have written represents my own personal views, and is not to be associated in any way with my official position in a Government Department.

R. G. HAWTREY.

16th October, 1933.

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CHAPTER I.

INCOMES AND DEMAND.

TRADE depression has many symptoms, but perhaps the most characteristic of all is the shortage of demand. Those who produce or buy goods with a view to sale are faced with a difficulty of selling them. Production is restricted and prices are reduced, and still it is found that sales fall short of output. Thus the under-employment of industry, with consequent unemployment of labour, the fall of prices and the accumulation of unsold goods are all related to the shrinkage of demand.

Where does demand come from? Clearly from people's incomes, and incomes are derived from production. People get their incomes by working, or else by letting their property or capital be used productively. The traders who sell things apply the proceeds of sale to paying the costs of production, and retain the balance as profit. The profit supplies the traders' incomes, and the costs are composed of other people's incomes in the form of wages, salaries, interest, etc. In fact, the whole income of the community is composed of the proceeds of sale of all the goods and services which constitute its output. One trader's outlay on materials or intermediate products goes to pay the incomes of those employed by others to produce these goods. Such incomes as old age pensions and the interest on the national debt, which are not paid in return for any current contributions towards the productive output of the community, are charged by taxation, etc., on the productive incomes. The consuming power of the latter is diminished by the amount of the former. The total consuming power of the community is therefore equal to its output.

The Vicious Circle.

This seems at first sight rather a surprising result. If consuming power is equal to output, how can there ever be a failure of demand? But, of course, once industry *is* under-employed, that very fact means an equivalent reduction of incomes, so that demand is only equal to the reduced supply. What we have to explain is how the shrinkage in both output and demand starts.

A very prevalent explanation is "over-production." When those engaged in any one industry find that they cannot sell their output, they are likely to describe the situation as one of over-production of the product of that industry. Output exceeds sales. Against this is urged the objection that there cannot be *general* over-production, unless there is general satiety of all human needs, a condition which is very far from being fulfilled. But that does not quite dispose of the matter.

Suppose that over-production occurs in *some* industries. Those industries find that they cannot sell their output. They restrict production and reduce prices. The fund out of which the incomes of the industries are paid is thereby doubly reduced, on account of smaller quantities and of lower prices. There is less employment and there are lower profits. The result of this reduction of incomes is that the demand for the products of *all other industries* contracts. They in turn, finding their sales declining, suffer a reduction of income, which means a further reduction of demand for products in general.

So a vicious circle is set up. The fall in demand causes a fall in output and prices; the fall in output and prices causes a fall in incomes from profits and wages; and the fall in incomes causes a further fall in demand. Adversity in any industry or group of industries tends to spread to all the others. And the adversity need not take the form of over-production. *Any* circumstance which results in the total receipts from which the incomes of the industry are provided being diminished will have the same effect.

It must constantly happen that some industry or other

is exposed to adversity. In the ordinary course of events there are always some industries under-employed, and less remunerative than normal. Are we to infer that the economic system of the world is doomed to chronic depression, that it can never escape for long from the disastrous operation of the vicious circle?

Certainly not. If there is a vicious circle of depression, there is likewise a vicious circle of activity. Let any industry or group of industries find increased demand, then the incomes of the group are increased, and they provide an increased demand for the products of all other industries. The other industries are stimulated, and so provide a still further increased demand, which takes effect either in increased output or, when output approaches the limit of capacity, in increased prices. The vicious circle of activity passes into a vicious circle of inflation.

There are thus two contrary tendencies always at work. An increase or decrease of activity originating anywhere in the realm of industry tends to spread everywhere with cumulative effect. If we wish to discover which is to predominate, we must get a little closer to the process by which production generates incomes, and through incomes demand.

Banks Generate Incomes by Lending.

The incomes have to be *paid*. Producers make themselves responsible for paying the incomes of those whom they employ in production, and have to pay these incomes *before* the product is available for sale to the consumer. For that purpose they must provide themselves with money. A producer who extends his output will need more money to pay increased wages and costs; unless he has a reserve of idle money at hand (which is not the most usual case) he will borrow the requisite sum from his banker. Producers as a body are always indebted to the banks; they are constantly incurring fresh indebtedness and paying it off out of the proceeds of sale.

If production is increased, the producers' disbursements are increased immediately, whereas their receipts from sales

are only increased after an interval. A prerequisite condition of increased production is likely therefore to be increased lending by the banks.

When a bank lends, it creates money out of nothing. The borrower becomes indebted to the bank for a sum to be repaid in the future with interest, and the bank becomes indebted to the borrower for a sum immediately available. The bank's debt is subject to the special condition that it can be assigned to another creditor by the drawing of a cheque. It can be used as a means of payment, and is therefore for practical purposes the equivalent of money. For certain classes of payment, it is true, cheques are not the most convenient medium. But nowadays in nearly all countries the standard money takes the form of bank notes, which are created by the issuing bank in the same way as bank credit subject to cheque is created by an ordinary bank. When the Bank of England buys securities or lends, it creates bank notes, or deposits convertible into bank notes, which count as money in the hands of the banks and the rest of the community.

When production is increased, the producers obtain from the banks the means of paying the increased incomes. The increase of production is therefore conditional on the action of the banks. When the banks lend, they *generate incomes.*

In fact, no one borrows money to hold it idle. Whatever is borrowed from the banks is borrowed for the purpose of being paid away and forming new incomes. This is true even if the money is used in the first instance to buy goods not from a producer but from a dealer who holds a stock of existing goods. For the dealer will replenish his stock from the producers, either directly or through other dealers.

It would seem that in this process the initiative rests with the producers and dealers in commodities, and the part played by the banks is purely passive. But the banks cannot afford to acquiesce in such a position.

The Limit Imposed by Money.

We have seen how increased production generates increased incomes, and increased incomes mean increased

demand, and how when production approaches capacity the growing demand will start a cumulative rise of prices, the "vicious circle of inflation." This process requires that the banks consent to lend and so to create credit in sufficient amounts.

But banks are not free to create credit without limit. A bank must have regard to the transactions for which its customers will want to use money in preference to cheques. It must preserve a due proportion between the credit it creates and its holding of money. The money, it is true, is created by the central bank, but the power of the central bank to create money is limited either by law or by practice. With a gold standard the limitation takes the form of requiring the notes and deposits of the central bank to be convertible into gold, and requiring it to hold a prescribed reserve of gold. But even with no metallic standard there must be some limitation, imposed either by law or by the discretion of the central bank.

If producers seek to increase output, and can only do so on condition that the supply of money is increased beyond what the banking system can allow, then the banks must intervene to prevent the increase of output. This they do by deterring traders from borrowing; they increase their charges for interest and, it may be, in some cases actually refuse to grant advances. If the producers cannot provide themselves with the means of paying the costs of production, they are precluded from undertaking the increased output.

In practice the pressure is applied by the banks, not so much to the producers themselves as to the dealers in commodities, who order goods from the producers. The producers will be allowed all the bank advances they require to carry out the production they actually contract for. Dealers, on the other hand, can exercise a wide discretion as to the amount of goods they choose to hold in stock or to order in advance, and are amenable to pressure from the banks. If they have to pay higher interest charges and meet with greater reluctance of the bankers to lend, they can readily arrange to carry on with somewhat smaller stocks of goods than usual and

correspondingly smaller bank advances. There result diminished orders to producers, diminished productive activity, and diminished incomes derived from production.

The producers will probably meet the situation by price concessions. The dealers will be induced thereby not to make so great a reduction in the orders they give, and the reduction in the volume of production and of employment will be to that extent less severe. But that is achieved only at the cost of a reduction of the producers' own profits, so that the reduction of incomes is not avoided. Unemployment may induce the work-people to accept a reduction of wages, and the consequent saving on costs will relieve profits, and will further mitigate the reduction of output, but still the effect is to give the reduction of incomes a different form without escaping from it.

In fact, when we speak of incomes being increased or diminished as a result of an increase or diminution of demand, we are referring primarily to profits and wages, the variable classes of incomes, and incomes from wages may vary either through changes in the volume of employment or through changes in the rates of remuneration.

Production of Capital Goods.

The foregoing applies in principle to incomes derived from the production of capital goods, such as buildings, works of construction, engineering products, ships, and all the material equipment of industry and transport, though the details are in some respects different. A man may buy a house out of his savings; an industrialist may pay for capital extensions out of accumulated profits or with bank advances in anticipation of future profits. There is nothing to distinguish such transactions from other purchases out of income except their magnitude. But the greater part of the demand for capital goods emanates from the promoters of capital enterprises, and the promoters in turn procure funds through the investment market or Stock Exchange. The investment market is an intermediary, receiving the investors' savings on the one side, and buying

the new securities issued by the promoters on the other. The savings come out of income, that is to say, out of the part of people's incomes which is applied to capital purposes, and which constitutes the current demand for capital goods. The new issues will not be exactly equal to the savings. If they exceed the savings in any interval of time, the excess has to be held by the dealers in the investment market (stock-jobbers), and they have to borrow money for the purpose. If the new issues fall short of savings, the dealers in the market receive more money than they pay out, and are enabled to repay bank advances.

The workings of the investment market are complicated, especially when the borrowings of the dealers are supplemented by those of speculators and speculative investors among the general public. But it will suffice for our present purpose to point out that, in regulating credit, banks will take measures to influence the borrowing operations of the investment market as well as those of the commodity markets. Thereby they will encourage or discourage new issues, and so stimulate or retard capital outlay, and capital outlay, like other forms of production, generates incomes.

Quantity of Money and the Price Level.

The relation between the banking system and the productive activity of the community is often misunderstood in two respects. In the first place, it is assumed that the governing condition is the quantity of money, or rather the quantity of money *plus* bank credit, constituting the total means of payment at the disposal of the community. And secondly, it is assumed that the effects of any disturbance are to be measured by changes in the price level.

In the long run the quantity of money and the price level must be in due relation to one another. But over short periods their relation is constantly being disturbed. An acceleration or retardation of lending by the banks results *directly* in an increase or decrease in incomes ; it does not have to work upon incomes through changes in the quantity of money. The changes in the quantity of money are themselves an effect of the change in the volume of lending. The

lending generates money, but the money, when it becomes income, is for the most part spent, and the sellers of the goods and securities on which it is spent are likely to apply the proceeds to repaying their own indebtedness to the banks. The increase in the quantity of money and bank credit is equal to the excess of lending over repayment.

The first effect of an increase or decrease of incomes is increased or decreased sales *at existing prices*. It is only when stocks of goods are reduced, and producers are becoming too fully employed to replenish them quickly, that prices are raised ; and in the contrary case it is when stocks of goods are accumulating and production is slackening that prices are lowered. The adjustments of price are in the first instance no more than *symptoms* of increased or decreased demand. Later on an appropriate adjustment of prices is a necessary condition of equilibrium. But so long as we are considering conditions of disequilibrium, we must direct attention in the first instance to the volume of demand, and regard the consequent price movements as symptomatic.

The essential relations are to be found in the association of production with incomes, incomes with demand and demand with production, and the intervention of the banks to accelerate or retard borrowing. Production generates incomes, but only so far as the banks allow the requisite creation of credit.

The Inherent Instability of Credit.

The banks, by restricting credit, can start the vicious circle of deflation, or, by relaxing credit, can start the vicious circle of inflation. Either process, once started, tends to continue by its own momentum. In the one case there ensues a cumulative shrinkage of demand, curtailment of output and decline of prices ; in the other a cumulative expansion of demand, increase of output and rise of prices.

Credit is thus *inherently unstable*. Equilibrium once disturbed, the departure from equilibrium tends to grow wider and wider. "Over-production," or any other circumstance

affecting an industry or group of industries unfavourably, may cause a depression in the sense of *starting* the vicious circle. But when we are seeking a remedy for the depression, the character of the initiating cause has very little to do with our problem. We can take measures to extinguish a conflagration without stopping to enquire how it was caused.

The Gold Standard.

Our next step will be to examine further the limitations under which the banking system works. The banking system of the world, as it was functioning in 1929, was regulated by *the gold standard.* Formerly the gold standard used to mean the use of money made of gold. Gold coin was used as a hand-to-hand medium of payment. Nowadays the gold standard means in most countries the use of money convertible into gold. The central bank is required to exchange paper money into gold and gold into paper money at a fixed rate. The currency of any gold-standard country is convertible into gold, and the gold is convertible into the currency of any other gold-standard country. Thus the currencies of any two gold-standard countries are convertible into one another at no greater cost than is involved in sending gold from one country to the other.

Gold is a commodity with other uses than as money. But it would be a mistake to suppose that it therefore provides an independent standard of value. The industrial demand for gold throughout the world is insignificant in comparison with the demand for it as money. It is only a fraction of the annual output, and the annual output is only about 4 per cent. of the total stock held by the central banks and currency authorities of the world in their reserves. The market for gold practically consists of the purchases of the central banks from the mines and from one another. It is by their action that the value of gold in terms of other forms of wealth is determined.

Control of Credit by Central Banks.

Under the gold standard, a central bank is compelled to buy and sell gold at a fixed price, and cannot bid for gold by offering a higher price. If it wants to acquire more gold it must take measures which are equivalent to raising the value of the money in which its fixed price is computed.

The central bank supplies the other banks with money. By restricting the supply of money it can compel them to contract credit, or by increasing the supply of money it can induce them to expand credit. It is the practice for the central bank to act as the lender of last resort in the banking system; it will lend at a prescribed rate ("bank rate") on suitable security to any of the other banks needing cash.[1] In order to restrict the supply of money it raises bank rate, and it can reinforce this measure by selling securities in the open market and extinguishing the money received for them. To increase the supply of money, it lowers bank rate and buys securities in the market.

If the central bank wants to acquire more gold or to stop an outflow of gold, it sets on foot a contraction of credit, and thereby reduces the incomes of the community expressed in terms of money. People, having less money to spend, buy less of everything, and incidentally buy less imported goods. The contraction of credit does nothing to diminish exports (in fact, the decrease in the home demand for exportable goods tends actually to increase them), and the result is a "favourable" balance of payments, an excess of exports over imports (visible and invisible), which tends to bring about an inflow of gold.

The reduction of incomes may be regarded as causing a "scarcity" of the country's currency. Less of the currency is offered in exchange for goods in the world's markets. The scarcity is made good by the importation of gold which can be turned into currency by being sold to the central bank.

[1] In England the practice is for the Bank of England to lend, not directly to the Joint Stock Banks, but to the Discount Houses. But the effect is the same.

Similarly, if a country relaxes credit and increases incomes, it attracts imports and loses gold.

External and Internal Price Levels.

So long as all the countries which have a gold standard aim at keeping their gold holdings approximately unchanged (except for natural growth), the effect of the system is to keep their relative purchasing power in equilibrium. Incomes in each country are kept at such a total that what the country buys in world markets is just suitably balanced by what it sells in world markets.

By world markets we mean the markets in all those goods which are adapted for exportation from one country to another. They may conveniently be called foreign trade products, in contradistinction to those for which exportation is impossible or impracticable, and which may be called home trade products. Foreign trade products include the great majority of foodstuffs, industrial materials and manufactured commodities. Home trade products are largely composed of *services*, such as those of cleaning and repairing, construction, inland transport, domestic service, teaching, entertainment, etc., but they also include some material commodities which are too fragile or perishable, or too bulky in proportion to value to be suitable for transportation.

A foreign trade product has an international price. That does not mean identically the same price in different countries, but prices connected together by competition in the market ; subject to any imperfection in the working of the market, the price in an importing country will only differ from the price in an exporting country by an amount not exceeding the cost of transport between the two, and import duties (if any).

Now, when credit is restricted or relaxed in any country, and incomes are contracted or expanded, the prices of home trade products are free to adapt themselves to the change, but not so the prices of foreign trade products, which are determined internationally. If we call the price levels of

home trade products and foreign trade products the internal price level and the external price level respectively, we may say that the gold standard requires a country to adapt its incomes to its external price level, and its internal price level to its incomes.

The Balance of Payments.

The governing condition is the external price level. And to get at the root of the matter, we have to discover what determines the external price level, or in other words the *world* price level.

That does not mean that no adaptation is called for from any country as long as the world price level remains unchanged. Suppose something occurs to diminish the country's power of producing foreign trade products, a crop failure, perhaps, or permanently increased competition from rival producers. Its purchases in world markets must be reduced by as much as its sales, and this requires a restriction of credit and a contraction of incomes. The same is true of any new external liability, like the German reparation payments. Or, if a country increases its external investment, that is for the moment a new liability from it to the countries in which it is investing, though there will arise in the future a liability for interest or dividends from the latter to the former. We may regard the purchase of foreign securities as an invisible import and the encashment of coupons or dividend warrants as an invisible export.

Thus anything which affects the balance of payments of a country requires a corresponding adjustment of its incomes and of its internal price level, and its banking system is responsible for effecting the adjustment. Failure to do so results in an outflow or inflow of gold.

CHAPTER II.

Anarchy in World Credit Control.

The great depression which has been raging since 1929 is world-wide. The outstanding fact is the catastrophic curtailment of demand throughout the world, made manifest in the collapse of prices and the appearance of extensive unemployment.

Every country has had to adapt its incomes and its internal price level to the world price level. What that means is that every country has had to adapt its incomes to the incomes prevailing in all the others. So long as the gold standard remained in effective operation, no one of them could afford to stand aside, for if its incomes failed to contract as fast as those of its neighbours, it would lose gold.

What has to be explained is the world-wide collapse of demand or, in other words, of *incomes*. To each separate country it appears as pressure from the others. But if we view all the gold-standard countries as a single community, we can apply to this community the reasoning we have already used. It will be exposed to the alternative possibilities of a vicious circle of depression or a vicious circle of inflation, and the responsibility for determining which prevails or whether both shall be kept in check rests with the banking system.

We no longer have to consider a single banking system, but a number of independent banking systems connected together only by the gold standard. Each system has its own currency, supplied by its own central bank. The central bank regulates credit only within the domain in which the notes it issues are current. The regulation of credit in the

gold-using world is the resultant of the action taken by all the central banks.

If their action averaged out, so that the resultant was usually a neutral or moderate effect, this might be a very tolerable practical solution of the question of credit control. But the inherent instability of credit makes this impossible. If expansion takes hold of some countries and contraction of others, the tendency is for the gap between the two groups to widen. Gold movements from the former group to the latter result and compel a reversal of their respective credit policies. But it cannot be assumed that when they have successfully corrected the divergence and stopped the flow of gold, there will on balance be neither expansion nor contraction. Even if this state of perfect quiescence were attained, it would be liable to be disturbed by some fortuitous occurrence starting the vicious circle of inflation or deflation in the system *as a whole*.

Suppose that contraction prevails. Credit restriction has made the holding of goods by traders all over the world less attractive, and they buy less from producers and order less from them. Production slows down. Initially contraction would not be universal. Some countries and some industries would be free from it. But if contraction on the whole predominates, then those countries and industries which are at first unaffected will soon suffer from the diminished purchasing power of the rest.

The merchants and dealers in foreign trade products, finding that demand contracts, will anticipate a fall of prices. This will be a fresh inducement to restrict and retard purchases. Every exporting country experiences a flagging of demand in world markets, and is compelled to contract credit in order to keep down its imports. Thus the vicious circle of depression works in an international system. The essence of the matter is the reluctance of *intermediaries* to buy goods. It is through their action that the tendency of the various countries concerned to buy imports in excess of exports is prevented from reviving demand. The merchants and dealers in international markets sell to such countries, but the money they receive is applied to extin-

guish bank advances or is held idle on deposit; it is not passed on to producers to elicit fresh output.

The vicious circle of inflation is equally likely to develop. Merchants and dealers are encouraged to borrow and therefore to buy. Production in all exporting countries is stimulated, and they expand credit and expand incomes so as to attract equivalent imports.

Though either course of events is the resultant of the action taken by the several central banks, no one of them has any responsibility for it. It has never been the practice for those in control of central banks to consider their responsibility for the behaviour of the system as a whole. They are like a party walking across country, no member of which knows the way or exercises any conscious control of direction. All the members indeed would indignantly repudiate any suggestion of a "managed" walking tour.

In principle this system would seem to be purely anarchic. The expansion or contraction of incomes throughout the gold-using world is brought about by the unco-ordinated action of a number of independent authorities recognising no common aim, no leadership, no responsibility to one another.

Credit Control before 1914.

In the century preceding 1914 this anarchic situation was mitigated in two respects.

In the first place, there is a tendency to centralisation inherent in any credit system, which makes itself felt even in an international system. Convenience requires something in the nature of an international centre or clearing house for all kinds of financial markets, the stock markets, the discount markets, the insurance markets, the foreign exchange markets. Transactions in these markets at places other than the centre give rise to residual balances, and these balances require to be brought together at a single centre to be set off against one another and settled. This function devolved upon London, so that London became the undisputed leader in the world of credit. Credit relaxation or

credit restriction would start in London and spread to other countries, because everywhere international trade was in great part financed by bills drawn on London and discounted in London at the rates prevailing in the London market.

Secondly, there was some degree of continuity in the monetary policy of the countries concerned. So long as no country made any violent or discontinuous change in the amount of gold it held, the demand for gold was kept steady. This was not enough of itself to keep the value of gold in terms of wealth stable, because there was room for considerable variations in the proportion of bank deposits in any country to the quantity of gold and in the proportion of incomes to bank deposits. But still these variations were kept within limits.

This continuity of policy in regard to gold, however, was not completely maintained. Up to 1872 the monetary standard of the world was not gold but bimetallic. The gold standard of England and the silver standard of Asia and half Europe were linked together by the free coinage of gold and silver at a prescribed ratio of values in France and a few other bimetallic countries. The wars of the period 1854-71 drove a number of countries, including the United States, France, Austria-Hungary and Russia, to inconvertible paper. As in the war of 1914-18, the effect was to release a quantity of gold and silver, and to raise the price level in terms of those currencies which retained a metallic basis.

After the end of the war with France in 1871 Germany decided to change over from a silver to a gold standard. In a year or two Germany imported gold to the amount of £50,000,000, nearly one-tenth of the world's entire monetary stock of gold at the time. There resulted a financial crisis and a precipitate fall of the price level. Bimetallism broke down, and one country after another passed from silver or paper to a gold standard, and started to accumulate a gold currency or a gold reserve. The demand for gold outstripped the yearly output from the mines, and a fall of prices prolonged till 1896 was accompanied by a severe depression of trade, broken only by short intervals of revival in 1880-82 and 1889-90.

From 1896 to 1914, though the change-over from paper to gold still remained to be carried into effect in a few countries, this demand for gold was more than offset by an enormously increased output from the mines.

The Demand for Gold as Money since 1914.

But since 1914 arbitrary changes in monetary policy and in the demand for gold as money have been greater and more numerous than ever before. First came the general abandonment of the gold standard by the belligerent countries in favour of inconvertible paper, and the release of hundreds of millions of gold. By 1920 the wealth value of gold had fallen to two-fifths of what it had been in 1913.

At that time the gold standard had almost entirely lost its international character; it hardly existed outside the United States. The value of gold was determined by the value of the American dollar.

The Federal Reserve Banks applied vigorous measures of credit restriction, and successfully stemmed the flood of inflation. The result, by the middle of 1921, was a fall of prices of 43 per cent. from the high level of 1920. In other words, the wealth value of gold had risen by 75 per cent. The United States, being the only purchaser of gold for monetary purposes, received all the surplus gold from the rest of the world. The monetary stock of gold in the country grew from $2,840,000,000 in the middle of 1920 to $4,507,000,000 at the end of 1924.

The years 1924-28 saw a general return to the gold standard. But there was no very marked change in the wealth value of gold. The countries concerned took steps to restrain their demand for gold, particularly by relying on reserves of foreign exchange to supplement their metallic reserves. The United States also parted with gold freely, and her holding had fallen to $4,109,000,000 in June, 1928. Anything like a general scramble for gold was successfully avoided. The price level, as measured by the American wholesale index, had not, on balance, fallen appreciably between 1924 and 1928.

But there then ensued a period of immense and disastrous instability. France had stabilised her currency in 1927, and re-established the gold standard in 1928. The greater part of the huge Government debt to the Bank of France, which had been the primary cause of the inflation, was paid off. At the same time there was a persistent expansion in the currency, for at the new parity chosen for the franc the existing monetary circulation was much below normal needs. The repayment of the Government debt made a gap in the assets of the Bank of France, just when the expansion of the currency was steadily increasing the Bank's liabilities. Additional assets had to be acquired, both to replace the advances to Government and to back the additional note issue. The Bank of France is narrowly limited in its choice of assets. It may rediscount commercial bills conforming to certain prescribed conditions, and it may make advances on gilt-edged collateral. But it may not buy bills or indeed any securities in the open market. It cannot *take the initiative* in acquiring assets, and its rediscounts and advances cannot be easily or quickly induced to expand to more than a very moderate extent.

In 1926, however, the Bank was given exceptional powers. It was enabled to buy foreign exchange. And that was how the gap in its assets was filled. By the end of 1928 the Bank held 32½ milliards (£260,000,000) of foreign exchange. At the same time it held some 32 milliards of gold, and its note issue was 64 milliards.

The beginning of 1929 saw a decisive change in French monetary policy. The power of the Bank of France to buy foreign exchange had been withdrawn in June, 1928, but till the end of 1928 its holding was nevertheless increasing through the maturing of forward purchases. Thereafter, however, the Bank not only ceased to buy foreign exchange, but proceeded to sell off a part of what it already held. By selling off over 6 milliards it once more made a gap in its assets. The gap was filled by gold, and inasmuch as the note circulation had not reached normal and was still expanding, gold continued to flow in. In the period from the beginning of 1929 to the outbreak of the financial crisis

in May, 1931, France absorbed 23¼ milliards of gold (£187,000,000). In the same period the United States absorbed $656,000,000 (£135,000,000). The effect was to reduce the stock of monetary gold in the rest of the world (exclusive of Russia) from £1,140,000,000 to £980,000,000. The world had avoided a scramble for gold in the years 1924-28 that had seen the general return to the gold standard. But now the newly established gold-standard system had to face a heavy reduction in the available gold supply outside the two countries, France and the United States, that had been absorbing gold.

Gold and Credit Control.

But gold does not tell the whole story. The depression is felt in a shrinkage of demand. In so far as the demand for gold has caused a restriction of credit throughout the world, and the restriction of credit has caused a contraction of incomes, the absorption of gold is linked up with the depression. But the super-structure of credit in a modern community is built not directly on a foundation of gold but on an intermediate sub-structure of *money*. It rests with the central bank (acting within its statutory limitations) to say how much money shall be built upon a given foundation of gold. The effect of the withdrawal of gold by one group of countries from another depends upon how the central banks of the latter group react. If they simply acquiesce in the loss of gold and maintain the same superstructure of money and credit on a smaller foundation of gold, the effect is nullified. In that case the absorption of gold by one group and the release of gold by the other together result in the demand for gold remaining unchanged.

If, on the other hand, when one group absorbs gold, the other resists the loss, that means that the central banks of the latter group will restrict credit. They will endeavour to bring about a contraction of incomes, so as to reduce the demand of their own people for goods in world markets. This reduced demand for goods may be interpreted as a relative preference for gold. It takes effect in a falling off

of sales of goods and a decline of price in world markets. This will tend to cause depression. If the causes tending to bring about the absorption of gold by the first group are powerful, the depression caused may be intense.

Credit Policy, 1919–25.

To discover how far the existing depression has been caused by the French and American absorption of gold, we must turn to the course of credit policy in the countries concerned in recent years.

We no longer find London with an undisputed leadership in credit policy. Such has been the growth in the financial strength of the United States that New York is in a position to participate with London on equal terms.

On the other hand, no other centres are anywhere near exercising the same international influence as either of these two. The next in importance are not the great capitals, Paris and Berlin, but Amsterdam and the Swiss banking system. But it is only the London and New York discount markets and money markets that can ever exercise a decisive influence on world credit. Of the two London still exercises the more extensive influence. There is a greater concentration of banks with foreign and colonial business in London, financing international trade all over the world through the instrumentality of sterling bills. American mercantile business has not developed the same variety and world-wide extent as British. It flows in somewhat more specialised channels, and the banking business maintains the same characteristic. American mercantile and banking concerns have not fully assumed the British function of impartial intermediary all over the world.

From the end of the war till 1925 London and New York were carrying on business with mutually independent currency units. The dollar had been restored to the gold standard in June, 1919. The pound was not restored till April, 1925. It was therefore possible for the two centres to carry out contrary credit policies without coming into conflict.

This did in fact occur. At first, it is true, America and England alike were involved in the inflation of 1919-20, and resorted almost simultaneously to ruthless credit restriction in 1920-21. But New York relaxed the tension in 1921 before London, and enjoyed trade revival and rising prices in 1922 while depression was still nearly at its worst in England.

Ever since the Bank Charter Act of 1844 came into operation, it had been the invariable practice of the Bank of England to treat trade depression with a low bank rate and credit relaxation. In every trade depression without exception in the period from 1844 to 1914 bank rate was lowered to 2½ per cent. or even to 2 per cent. for long periods. Sometimes cheap money prevailed uninterrupted for years, as in 1894-96, sometimes it was broken into by the exigencies of a crisis, as in 1878 or 1884. This resort to cheap money was strictly in accordance with the theory of credit regulation. Depression is the result of an undue contraction of incomes and therefore of demand in terms of money. Cheap money is the means of inducing an expansion of incomes, for the lending operations of banks generate incomes.

In 1922 the well-tried policy of cheap money was put into force. It was rather late in the day, for the wholesale price level had been reduced by half since the spring of 1920, and the number of unemployed had risen almost to 2,000,000. And bank rate was not reduced below 3 per cent. Still, revival unmistakably made itself felt.

Meanwhile, in the spring of 1923, the Americans, finding that credit expansion in their country had gone far enough and threatened to degenerate into inflation, reverted to restriction, and the divergence of policy between the two countries became apparent in a fall of the exchange from 4·70 in March, 1923, to 4·20 in January, 1924. The rise of bank rate to 4 per cent. in July, 1923, did not materially alter the situation, because the 4 per cent. rate was not made effective in the market.

But in the summer of 1924 the position was again reversed. The Americans, finding that they had done much more than counteract inflation and were lapsing into

depression and unemployment, reverted to credit relaxation and cheap money. The English, unwilling to see sterling depreciate relatively to the dollar and the prospect of re-establishing the gold-standard recede, restricted credit and made the 4 per cent. bank rate effective. Depression vanished in America, productive activity rapidly increased, and the price level rose. In England the policy of cheap money was abandoned, the revival of trade was interrupted, and the exchange improved.

At the beginning of 1925 sterling was within 1½ per cent. of gold parity, but British industry was still saddled with what came to be known as the "refractory million" of unemployed. Thus at the moment when the dollar and the pound had practically once more come together, American industry was in the full tide of activity, while British industry was in a state of grave depression, only less severe by the standard of the disastrous stagnation of January, 1922.

Credit Policy, 1925–29.

The relative values of the pound and the dollar had been responding with an almost mechanical precision to the regulation of credit in London and New York. It was perhaps natural to suppose that what was wanted to bridge the small remaining gap between the pound and parity was a little extra pressure in London.

At the beginning of March, 1925, bank rate was put up to 5 per cent. At the end of April the free export of gold was re-established, and the return to the gold standard was an accomplished fact.

But there was here a miscalculation. So long as the pound sterling was an independent paper unit, it was possible to influence the value of the pound relative to gold by restricting or relaxing credit in London. But the restoration of the gold standard made the pound once more an international unit.

The price level that was determined by credit regulation in London was the *world* price level. London, as I have already mentioned, was no longer the only centre concerned.

The actual price movements in the world were the resultant of the credit policies of London and New York. Whenever London and New York pursued different policies this resultant would differ from the effect of either policy taken separately. And credit regulation in London, while affecting world conditions, would, in general, affect British conditions more directly and closely.

If credit restriction started in London, the resulting contraction in British incomes and British productive activity might be expected to be more marked than in those elsewhere. Under the earlier conditions, when the London market possessed the sole leadership, credit restriction in London would soon have been followed by credit restriction in all other centres, and the question whether there would be any differential effect making contraction relatively more severe in British industry would not have arisen.

But in 1925 there was a definite divergence of credit policy between London and New York. Curiously enough each country adopted the policy appropriate to conditions in the other. In America, where trade was prosperous and prices were rising, cheap money was continued. In England, where trade was depressed, dear money was imposed. The 5 per cent. bank rate was continued by the Bank of England (except for one interval from 6th August to 3rd December, 1925) for two years. The rediscount rate in New York fluctuated in the same period between 3½ and 4 per cent.

The upshot was on the whole that the dear money policy prevailed. The depression in England remained unrelieved. The activity in America was perceptibly diminished. The index of manufacturing production, by contrast with the big increases which have been recorded at all times of prosperity since the war, was practically stationary, rising from 105 in 1925 to 108 in 1926 and falling again to 106 in 1927. The world price level was falling. The American index of wholesale prices [1] fell from a high point of 104·2 in March, 1925, to 93·7 in April, 1927. The British Board of Trade index [2] fell from 166 to 140 in the same period.

[1] 100 in 1926. [2] 100 in 1913.

These developments were extremely unsatisfactory. There had been some apprehension at the beginning of 1925 that the effort needed to maintain the pound at the level of purchasing power then corresponding to the historic gold parity would be found formidable. And possibly it would have been. But the purchasing power of gold had since been *raised* by more than 10 per cent. The effort involved in maintaining the gold standard was by so much greater.

In 1927, however, the situation was in some degree relieved. In the first place, France was stabilising the franc and was accumulating an enormous reserve of foreign exchange. The resulting demand for sterling and dollar bills lowered market rates of discount. In London the 5 per cent. bank rate became ineffective. It was lowered to 4½ per cent. on the 21st April, 1927, and that rate in turn became ineffective in May. For the rest of the year, it is true, pressure was exercised to make the 4½ per cent. rate effective, but the rate itself was not raised. And meanwhile the policy of credit relaxation in New York was intensified. The rediscount rate was not reduced below 3½ per cent., but lavish purchases of securities in the open market by the Federal Reserve Banks increased the supply of money. Manufacturing activity began to revive. The fall in the price level ceased, and made way for a slight rise.

In England, however, there was no revival. The growing activity in America caused a disparity of conditions between America and Europe, and there resulted very large exports of gold from America, which went mainly to France but partly also to England. By June, 1928, these exports of gold had amounted to £100,000,000.

This was the period of the great speculation on the New York Stock Exchange, itself the result of the unexampled prosperity of American industry since 1922. The speculation and the loss of gold between them led the Federal Reserve Banks once more to make a change of policy. The New York rediscount rate was raised by successive steps to 5 per cent. (July, 1928), and was made effective by large sales of securities by the Federal Reserve Banks. For the first time since gold had resumed its function as an international

standard, New York and London had ceased to pursue conflicting credit policies. They combined in a policy of credit restriction and dear money. The United States ceased to lose gold, but the speculation continued and gained force, particularly in the closing months of 1928, and then, after a quiescent interval, in the summer of 1929. England, on the other hand, began to suffer an outflow of gold, mainly to France, but at times in 1929 also to the United States. The Bank of England raised its rate to 5½ per cent. in February, 1929, and to 6½ in September, 1929, and the New York rate was raised to 6 per cent. in August, 1929.

Meanwhile, credit restriction had already begun to produce its effect on industry. When business is active, there is invariably found to be an interval of some months before its activity can be checked by dear money and other restrictive measures. That is bound to be so, because producers have an accumulation of forward orders to work through, and will not begin to slacken operations till these orders are completed. In the United States productive activity reached its maximum in June, 1929.

By October, 1929, it had begun to fall off so palpably that the optimism of the speculators in Wall Street was cooled down. By the end of that month the collapse of the speculation had started.

The Onset of Depression, 1929–30.

With the history of the speculation and its collapse I am not concerned here further than to say that the psychological effect of the enormous paper losses sustained was bound to intensify the reaction in trade and industry that had already been in progress for several months. I have explained the operation of the vicious circle of activity and the vicious circle of depression. In 1929 a drastic credit restriction was applied to prevent the vicious circle of activity from gaining a hold in the United States. By restricting those lending operations by which incomes are generated, the banks induced a *reduction of demand* for goods and services of all kinds. The reduction of demand led to a reduction of

activity and of incomes and so to a further reduction of demand. The vicious circle of activity made way for the vicious circle of depression.

In England, on the other hand, depression had prevailed ever since 1920. Candid friends were to be found on all sides ready to adduce the economic degeneration of the country as the explanation. British manufacturers, it was said, were too conservative and too slow to adopt modern improvements either in machinery or in business organisation. British workmen would not face a reduction in their standard of living, they were demoralised by the benefits of unemployment insurance and the stress of unemployment no longer achieved its appropriate corrective in bringing down wages from an uneconomic level. British exports, already handicapped by high costs, found their markets restricted by increased tariffs, by intensified competition and sometimes by political disorders and boycotts.

These sources of weakness had their importance, but in reality they were not the main cause of the trouble. That was to be found in a persistent and almost uninterrupted deflation. Revival had been checked by the restrictive measures that preceded the return to the gold standard in 1925, and had never been resumed. The position is best indicated by the course of prices. The general wholesale index number and the index of the prices of British exported manufactures give substantially the same results:

	Wholesale Index.	Exported Manufactures.
1924	100	100
1925	95·7	98·2
1926	89·1	92·6
1927	85·2	87·3
1928	84·4	86·7
1929	82·2	84·8

If British manufacturers could not keep pace with their competitors in installing the latest improvements, that was

because with falling prices they could not make adequate profits. They were suffering from persistent and growing financial embarrassments.

In 1924 the price level was little more than half what it had been in 1920. Wages had hardly kept pace with the tremendous rise of prices in the years 1914-20. When the reaction came in 1920-22, there was a rapid fall, facilitated in many trades by the practice temporarily adopted of basing wages on the index of cost of living. It was only *after* this experience that a strenuous resistance to any further reduction of wages was felt.

When America suffered the sudden transition from prosperity to depression in the latter part of 1929, England was already a deadly centre of contagion from which the blight of pessimism was ready to spread. The dear money that had been maintaining deflation year after year had been intensified. When the break came in October, 1929, bank rate was reduced. But it did not get down to 5 per cent. till December, nor below 5 per cent. till February, 1930. The rate of 3½ per cent. which may be regarded as the beginning of "cheap money" was not reached till the 20th March, twenty weeks after the first reduction from 6½ per cent.

So long a delay is in conspicuous contrast with the prompt transitions from dear money to cheap money that had been practised for nearly half a century before the war.[1] By the time bank rate came down to 3 per cent. in May, 1930, the depression had gained a decisive and terrible hold not only upon England but upon the entire world.

The effect of the American stock market crisis wore off. The index of share prices,[2] which had risen to 228 in September, 1929, fell to 140 on the 16th November. By April, 1930, it had recovered to 181. But the prices of stocks and shares are little more than a symptom. They correspond to people's opinions of the prospects of business, and once again these opinions were mistaken.

[1] See *Art of Central Banking*, pp. 234-5.
[2] Standard Statistics Co.; 100 in 1926.

Deflation reigned with a more relentless intensity than the world had ever known. The American price index fell from 95·1 in 1929 to 71·3 in May, 1931, and the index of employment from 99·3 in September, 1929, to 74·1 in May, 1931. The number of unemployed in Great Britain rose from 1,203,000 to 2,578,000, and in Germany from 1,324,000 to 4,053,000.

CHAPTER III.

DEADLOCK IN THE MONEY MARKET.

A MODERATE trade depression can be cured by cheap money, The cure will be prompter if a low bank rate is reinforced by purchases of securities in the open market by the central bank. But so long as the depression is moderate, low rates will of themselves suffice to stimulate borrowing.

On the other hand, if the depression is very severe, enterprise will be killed. It is possible that no rate of interest, however low, will tempt dealers to buy goods. Even lending money without interest would not help, if the borrower anticipated a loss on every conceivable use that he could make of the money. In that case the purchase of securities by the central bank, which is otherwise no more than a useful reinforcement of the low bank rate, hastening the progress of revival, becomes an essential condition of the revival beginning at all. By buying securities the central bank creates money, which appears in the form of deposits credited in its books to the banks whose customers have sold the securities. To a commercial bank a deposit at the central bank counts as money on the same footing as actual bank notes. The banks can thus be flooded with idle money, and given a new and powerful inducement to find additional borrowers.

Something like this situation occurred in the years 1894-96. The trade reaction which began after 1891 was disastrously aggravated by the American crisis of 1893. Enterprise seemed to be absolutely dead. Bank rate was reduced to 2 per cent. in February, 1894, and remained continuously at that rate for two and a half years.

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The Bank of England received unprecedented quantities of gold, and yet added to its holding of Government securities. Its deposits rose to a substantially higher total than was ever reached either before or after, till the outbreak of war in 1914.[1] Nevertheless revival was slow. The fall of prices was not stopped till 1896. But by that time the unemployment percentage, which had exceeded 10 per cent. in the winter of 1893, had fallen to 3·3 per cent.

Since the war the Federal Reserve System of the United States has resorted freely to the policy of open market purchases of Government securities. It was a feature of the credit relaxations in 1922, 1924 and 1927. The same policy was followed at first in 1930, but in June of that year it was abandoned. The holding of Government securities was not raised on that occasion beyond the point at which it

[1] This is still true even after allowing for a balance of £10,000,000, or more, being tied up for many months in connexion with the payment of the war indemnity from China to Japan. I venture to differ from M. Rist's interpretation of the course of events during this period. He describes the period from 1890 to 1895 as one of profound depression, and argues that the fact that the "other securities" (i.e., those other than Government securities) decreased in the period from £23,000,000 to £21,000,000, illustrates the impossibility of a central bank increasing its credit operations at such a time (*Essais Économiques et Monétaires*, p. 107). But in fact the year 1890, far from being one of profound depression, was one of activity, marked by a maximum price level and a minimum unemployment percentage. It was also a year of severe credit stringency, which would naturally cause an expansion of rediscounts.

In the year 1895, on the other hand, the profound depression was in full swing. The Bank of England was already tentatively relieving the situation by increasing its holding of Government securities, but it was not till 1896 that the total securities (Government and other) exceeded the figure of 1890. The following table shows the annual average amount of securities in the Banking Department:

1890	£37,605,000
1891	£40,000,000
1892	£38,155,000
1893	£37,098,000
1894	£32,748,000
1895	£36,258,000
1896	£43,147,000

had provided the member banks with the means of reducing their rediscounts to a minimum.

From May, 1930, till the crisis of July, 1931, all the principal financial centres had cheap money. But this by itself was quite insufficient to overcome the reluctance of borrowers. The normal process by which lending generates incomes was interrupted, not, as in 1929, by an impediment from the side of the lenders, but by an impediment on the side of the borrowers.

It is sometimes said that depression cannot be due to a "scarcity of money" when, in the language of the money market, there is a "plethora of money." But that only means that there is a plethora of *offers to lend money*, or in other words an insufficiency of offers to borrow. To generate money, lenders and borrowers must combine, and the process may be interrupted by an insufficiency of either.

Effects of the Absorption of Gold.

The credit restriction in 1929 was unmistakably attributable to the absorption of gold by France and the United States. In that year France took 10 milliards (£80,000,000), of which 7 milliards (£56,000,000) were required to replace foreign exchange disposed of. The United States took $245,000,000 (£50,000,000) up to the end of October, and then lost $103,000,000 (£20,000,000) of it in November and December. The gold in the Bank of England fell from £173,000,000 in September, 1928, to £150,000,000 in February, 1929, when bank rate was put up to 5½ per cent., and, after recovering to £163,000,000 in June, fell to £132,000,000 in September, 1929, when the further advance to 6½ per cent. occurred.

The Federal Reserve Banks can hardly be blamed for their policy of credit restriction up to the moment of the Wall Street crisis. The frantic speculation which was raging undoubtedly threatened to spread inflation to the economic system of the country, and the measures taken did no more at that time than keep this danger in check. The result was to draw gold from England and so to accentuate

the embarrassment due to the French absorption of gold. That the Bank of England should be indifferent to the loss of £40,000,000 of gold in twelve months was hardly to be expected. But after the Wall Street crisis, when the United States lost gold, the Bank of England was enabled to build up its gold to £150,000,000. The long delay in reducing bank rate between October, 1929, and May, 1930, was not attributable to any shortage of reserves.

The inflow of gold into the United States had, it is true, recommenced. In the first six months of 1930 it amounted to $250,000,000. That was the time at which the Federal Reserve Banks were buying Government securities. The policy of open market purchases of securities is the natural corrective of an inflow of gold. Gold is imported to provide backing for the note issue and for the deposit liabilities of the central bank. Securities provide an alternative backing, and so tend to dispense with the gold. By July, 1930, the rediscounts in the Federal Reserve Banks, which had reached $1,000,000,000 in the summer of 1929, had fallen to $200,000,000. The inflow of gold then ceased, and the purchase of securities was dropped.

Meanwhile, the inflow of gold into France had stopped. There had been a seasonal reduction in Government balances at the Bank of France from February to April, which tended to release a corresponding amount of assets. By the beginning of May the gold in the Bank of England had risen to £163,000,000. That temporary relief once past, the absorption of gold into France was resumed, and in the six months from the end of April to the end of October, 1930, it amounted to 8½ milliards (£68,000,000).

Then for a time both France and the United States took gold, and by the end of February, 1931, France had received another 4 milliards (£32,000,000), and the United States $130,000,000 (£27,000,000). Between them they were absorbing £14,500,000 a month, as compared with £12,000,000 in the period January-October, 1930.

This absorption of gold was at first mainly at the expense of countries outside Europe which played no considerable part in the world's credit system. Early in the depression

Argentina, Brazil and Australia suspended the gold standard and thereafter they drew upon their gold to meet external obligations. Japan had suspended the gold standard ever since 1923, but re-established it in January, 1930, and sustained it by large exports of gold. In the period from the beginning of 1930 to May, 1931, these four countries parted with gold to the amount of £95,000,000.

The greater part of this "distress gold" came, in the first half of 1930, particularly from Australia and Japan. It slackened off in the second half of the year, but gold to the value of over £20,000,000 was withdrawn from Germany after the election of September, 1930, in which the extreme parties, the National Socialists and Communists, both gained heavily at the expense of the parties of moderation.

Up to October, 1930, the Bank of England had not suffered from the drain of gold. On the 5th November, the gold holding was £160,000,000. But thereupon there ensued the intensified absorption of gold by France and the United States, while the supply of "distress gold" had fallen off and was no longer reinforced by the withdrawals from Germany. By the end of January, 1931, the Bank's gold holding had fallen to £140,000,000.

For some time the gold situation had been a source of anxiety in London. The inflow of "distress gold" was only a stop-gap defence against the apparently limitless demands of France and the United States. When it failed, and the country lost £20,000,000 of gold in three months, the Bank resorted to restrictive measures.

Bank rate was not raised, but the Government securities in the Banking Department were reduced from £52,000,000 in the middle of January, 1931, to £28,000,000 at the end of March. That was the lowest figure since August, 1928. The 3 per cent. bank rate became "effective," the market rate on three-months bills rising above 2½ per cent. Here was a restrictive open market policy, designed to curtail the amount of idle money in the banking system.

Between May, 1930, and January, 1931, the drain of gold to France and the United States had not caused any active measures of credit restriction. Even in that period credit

relaxation had been less consistent and whole-hearted than it might have been. In the years 1894-96 the 2 per cent. bank rate was almost continuously ineffective, the market rate in 1895 averaging less than 1 per cent. In 1930 the market rate never fell below 2 per cent.

The depression had originally gained impetus from delay in reducing bank rate between October, 1929, and May, 1930. There followed the abandonment of the policy of open market purchases by the Federal Reserve Banks in June, 1930, and a continued suspension of such purchases in face of the renewed inflow of gold into the United States after October, 1930.

There were some signs in the opening months of 1931 that the deadlock was becoming less complete. The fall in the price level went on relentlessly, but the decline in industrial production, at any rate in the United States and Germany, was stayed. It is possible that, despite the obsession of pessimism, easy credit was beginning to take effect.

But it was just then that the Bank of England had been losing gold, and was reverting to a policy of restriction. And in May, 1931, the financial crisis started.

The Intensity of the Depression.

If we seek an explanation of the unparalleled severity of the depression, we shall find it primarily in the fact that the credit restriction of 1928-29 was imposed at a time when there was no inflation to be corrected. Equally drastic credit restrictions had been imposed on the world on various occasions in the past, but only at times when credit expansion had been gaining impetus for years, and was threatening to get out of hand, as in 1906-7, in 1872-73, in 1856-57, and, most conspicuously of all, in 1920. In 1929 there was no inflation. Industrial activity had attained a maximum in the United States, but prices had not been rising, and had indeed fallen substantially since 1925. Profits were high, and the resulting sensational rise in prices of stocks and shares had induced a fear of inflation, and supplied the

pretext for the credit restriction. But inflation can only take effect in the commodity markets. A rise in prices of stocks and shares does nothing in itself to cause an excessive demand for commodities. The investment market is no more than a channel through which the savings available for investment are applied to new capital outlay. The passage of the savings through the channel is accompanied by some reshuffling of investments, but the prices at which the investments are bought and sold do not affect the total amount of savings passing through. If $100,000,000 come into the investment market and buy 10,000,000 shares at an average price of $10, the sellers of the shares have $100,000,000 to invest in new issues. If the shares had been at an average price of $20, that would merely have meant that only 5,000,000 would have been sold, and the amount to be placed in new issues would still be $100,000,000. If a favourable stock market tends to produce inflation, that is because it facilitates and attracts new issues, and capital outlay tends to *exceed* the current amount of savings, the excess being financed by a creation of credit. But the inflationary effect of this creation of credit is then felt in a rise in the price level of capital goods; it is quite unnecessary to go outside the prices of commodities to find evidence of it.

Thus in 1929 there was no inflation in the United States.[1] And Great Britain was still suffering from a long-drawn-out deflation. British credit policy had been in striking contrast with that of the past, in that, for the first time since bank rate had possessed any significance, a state of trade depression had been treated persistently and relentlessly with dear money. Depression in Great Britain was already tending to infect the rest of the world in the years following the return to the gold standard in 1925. For a time its influence was staved off by the credit relaxation in America and elsewhere in 1927-28. But at last the credit restriction of 1928-1929 opened the way to the pent-up force of British deflation,

[1] See *The Art of Central Banking*, pp. 46-50 and 82-3. See also below, pp. 104-6.

and the delay in reducing bank rate after the crisis of 1929 decided the matter.

The depression once securely fastened on the world, little positive action was required to maintain its disastrous progress. It may require a violent struggle to throw a man into a pond, and yet, once he is in, it may be quite easy to push him back with a pole every time he tries to climb out.

CHAPTER IV.

DISPARITIES.

IT is well to understand clearly how far-reaching are the consequences of a contraction of demand. It affects different industries in different ways, and so causes striking disparities among them.

The first symptom of contracting demand is a decline in sales to the consumer or final purchaser. The orders given to manufacturers fall off, and they reduce output. It is worth while for a manufacturer to make price concessions in order to keep his plant as nearly as possible fully employed. But these price concessions are made tentatively and gradually. Any manufacturer who carries them beyond what the circumstances require will lose the more lucrative orders by taking the less. Nor will price concessions in the wholesale market stimulate demand at all until they are passed on to the consumer. And here there may be considerable delay.

It is therefore true to say that in manufacturing industry, not only the first impact of a decline in demand, but its predominant effect for a protracted period is a reduction of output, accompanied by unemployment and by an encroachment of overhead costs on profits.

On the other hand, the producer of primary products, foodstuffs and raw materials does not in general adjust his output to orders given beforehand. In the case of agricultural products particularly, the character of the production is determined from season to season, and a decline of demand is met in the first instance not by a reduction of output but by a reduction of price. A reduction of price may lead to a reduction of output in the next season. But in the case of crops a reduction in the acreage of one crop

usually means an increase in the acreage of others. When demand as a whole falls off, and the prices of *all* crops decline, there is not likely to be a very drastic reduction of the total acreage under crops.

The demand for primary products is apt to be inelastic, in the sense that price concessions do not elicit a proportional increase in sales. That is notoriously the case with cereals. And it is bound to be so also with all forms of raw material, because the further removed a process is from the final sale to the consumer, the less will a price concession on that process affect the price charged to the consumer. When the price of raw cotton falls from 8d. to 4d., the effect on the price of yarn is very considerable, on the price of cloth less, on the price of a finished garment much less again. When the price of rubber falls, the effect on tyres may be perceptible, but the effect on the cost of a car is very small.

Thus, when demand contracts, the incomes of the manufacturing population and of the agricultural population of the world will both fall, but whereas in the former the fall will at first, at any rate, be mainly due to reduced output, in the latter it will be mainly due to reduced price.

Retail prices are the most recalcitrant. The retailer will acquiesce in a decline in sales for a long time before he will try to correct it by reducing prices. The wholesale dealer also will not take the initiative in cutting prices to stimulate sales, at the cost of reducing his profit margin. Price concessions originate with producers and particularly with those producers who have either heavy overhead costs or a long production period. The agricultural producer is a particular case of this principle, and there may be wide disparities between one manufacturing industry and another.

Disparities also arise from differences in the character of the demand for the products of different industries. When there is a reduction of incomes and prices remain unchanged the effect is the same as if incomes had remained unchanged and prices had risen. The falling off of sales is greatest among luxury goods and those for which the demand is "elastic," and is least among necessaries and those for

which the demand is "inelastic." The falling off also tends to be greater among relatively durable goods, such as clothes, of which the replacement can be postponed a little, than among goods, such as food, which are destroyed by the act of consumption.

Whenever there is delay in reducing prices to the point at which consumption keeps pace with output an accumulation of goods in stock begins. Accumulations of finished goods are usually kept within narrow limits, for dealers do not order more goods than they sell, and manufacturers are reluctant to produce for stock. But big accumulations of foodstuffs and raw materials are a conspicuous feature of trade depression.

The accumulation of stocks of goods is apt to be regarded as a symptom of "over-production." The stock of a product at any moment represents excess of production over sales. If the excess is due to a shrinkage of sales, the term "over-production" if unqualified becomes inappropriate, though there may fairly be said to be a *relative* over-production. If the demand for a particular product is falling off, then producers ought to reduce their output to whatever extent is requisite to re-establish equilibrium between prices and costs. If they fail to do so, they have produced too much.

If it is not the demand for a particular product but the demand in terms of monetary units for *all* products that falls off, then though a part of output remains unsold there cannot be said to be over-production at all. The normal balance, by which production generates incomes just sufficient to buy the products, has been interfered with. Money that ought to be passing through incomes to form demand is intercepted and either extinguished by repayments of bank advances or held idle in balances. The shortage of demand is thus caused by a hitch in the credit system.

But when this has occurred, and the producers of primary products fail to curtail output, the accumulation of unsold stocks of these products becomes an independent disturbing factor. Even if output is subsequently restricted and becomes no more than equivalent to consumption, the excessive stocks remain a burden upon markets. The

existence of a redundant supply, apart from current output, tends to depress prices even below what would otherwise be their equilibrium point. This is especially so in the case of commodities like wheat and cotton, for which the cost of storage is high relatively to their value. And it must not be forgotten that when output and sales both diminish, smaller stocks are required, so that even if stocks were no more than normal they would for the time being be excessive.

The accumulation of stocks accentuates the disparity between the prices of primary products and of finished products.

Savings and Capital Outlay.

The case of the producers of capital goods requires separate consideration. The demand for capital goods is determined by the amount of investible funds becoming available. Investible funds consist primarily of savings *out of income,* though they may be reinforced by bank advances, or may be diminished through the repayment of such advances.

We are supposing a credit contraction to be in progress, and it may be assumed that the bank advances to the Stock Exchange are being curtailed, or at any rate actively discouraged, along with the rest. The supply of savings therefore will not easily be supplemented by bank advances.

Now in any community the main source of savings is likely to be the traders' profits, taken in the widest sense to include industrial, commercial and financial profits. The rentier, whose income is composed of pure interest, has little motive to save, because his income is already secured independently of his personal exertions, health or life (except for the encroachments of the tax-gatherer). The recipients of salaries and wages have a motive to save, but can spare but little. It is the profit-makers who have incomes that are *large, precarious and fluctuating,* and who have both the means and the motive to save.

And the main impact of a trade depression is on profits. First the restriction of output diminishes the margin available after meeting overhead costs. Then there follows a

fall of prices, which diminishes the proportion of profit to output, unless costs are reduced by cuts in wages or other means. Costs probably are reduced, but the shrinkage of demand and the fall of prices are progressive, and while they continue, the reduction of costs is likely to lag far behind them.

The result of reduced profits is reduced savings. The owners or partners of firms, unable or unwilling to effect drastic economies in their personal expenditure, leave less of their profits in the business. Companies, in the effort to maintain dividends, or not to reduce them too severely, make smaller payments from profits to reserve. Some businesses draw on past reserves to keep up their dividends, and some are carried on at an actual loss, encroaching on capital even when they make no distribution at all.

The incomes of shareholders and other profit-makers are reduced in spite of these devices, and they in turn save less out of their incomes. The stream of money seeking investment through the Stock Exchange is diminished. The market becomes less favourable to new capital issues. Underwriters of new flotations become overburdened, and issuing houses become reluctant. If the new issues are not cut down fast enough, the market has to hold the excess with additional bank advances, and is exposed to all the pressure that the banks are exerting in order to contract credit.

Since profits fall more than in proportion to prices, and savings fall more than in proportion to profits, the reduction in capital outlay is likely to be very heavy indeed. Capital outlay employs the industries engaged on constructional and engineering work, and it is well recognised that they and the industries providing them with materials (e.g. metals) are particularly susceptible to trade depressions. In 1932 the steel industry of the United States was working at less than one-fifth of capacity.

But the shrinkage of capital outlay causes disparities in the effects of depression not only on different industries, but also on different *localities*. Under normal economic conditions a considerable part of the capital outlay of the world is incurred in new countries, where natural resources

are in course of development, population is being swollen by immigration, the means of transport are being extended to new districts, cities are being founded and enlarged with all the consequent expenditure on buildings, public utilities, etc. Since the greater part of the savings of the world comes from the *old* countries, where the profit-makers are concentrated in the great commercial and financial centres, there must be a flow of investment from the old countries to the new.

The import of capital has a favourable effect on the balance of payments of the new countries. As explained above, it is an invisible *export*, an export of securities. When depression brings about a collapse of profits, the supply of savings in the old countries is cut short. Investment has to be cut down everywhere, and investment in the new countries undergoes its share of the process. The result is a big decrease in the flow of capital from the old countries to the new. The balance of payments of a new country is adversely affected by this reduction of an invisible export, and it is compelled to restrict incomes all the more severely.

Enterprise and Confidence.

Concurrently with the shortage of savings there is another aspect of depression which affects capital outlay. Capital outlay is incurred with a view to future interest or profit. When demand contracts the prospect, of profit from a given enterprise is lessened. A large part of capital outlay is devoted to extending the capacity of industries of which the output is failing to keep pace with demand. Under normal conditions most industries require such extension, if only on account of the natural growth of population. But when demand suffers contraction, the need for extension is diminished or entirely suspended. At a time of depression, therefore, not only do savings fall off, but enterprise also dwindles. When this occurs, the investment market has the less difficulty in restricting capital issues to the available savings, and may even be found trying to tempt promoters to bring out more capital issues to use up savings.

On the other hand, it must be kept in mind that capital outlay is not applied exclusively to extensions of capacity. It is constantly required for improvements in industrial plant and equipment, which reduce costs, replacing obsolete equipment and often displacing labour. However depressed markets may be, it is worth while for those industrial concerns that *are* employed to reduce their costs. Capital outlay of this class is encouraged by an investment market favourable to new flotations.

Yet another complication arises in the capital market in that depression impairs confidence in borrowers. The fall in prices means a depreciation of debtors' assets in comparison with their liabilities. To put the same thing in another way, the appreciation of money increases the burden of debts.

In the case of a commercial or industrial concern the position is obvious enough. The market valuation of stocks of commodities falls. The valuation of the fixed capital of industry or agriculture is reduced in proportion to its profit-earning power. Overdrafts, debenture debts and mortgages remain fixed in money, while the money value of the assets on which they are secured becomes less and less. Concerns previously solvent and prosperous find their net value a negative quantity. Others, which still have a balance on the right side, cannot make a good enough showing to satisfy intending lenders. Experience of this drift into bankruptcy makes lenders more exacting.

In the case of Governments and public authorities the same process is at work. Incomes are contracted, and taxable capacity decreases. A falling revenue is available to meet a public expenditure which usually includes a large proportion of items fixed by contract in money and others which it may be difficult to alter. The strain may become so great as to threaten default, especially where there are weaknesses in the political situation.

It is conceivable that the restriction of capital outlay combined with the distrust of borrowers might result in new flotations falling short even of the restricted supply of savings available at a time of depression. The excess savings will either be applied to buying existing securities and so

extinguishing part of the bank advances to the Stock Exchange, or be simply held idle in balances. In either case so much income as the excess savings represent will have failed to materialise in demand for goods at all. This is another vicious circle. The depression causes a reluctance to invest, and the failure to invest intensifies the depression.

The banks in which the idle deposits are placed are apt to cover them with purchases of investments in the Stock Exchange on their own account. The result is to reduce still further the bank advances to the Stock Exchange; it makes the market more favourable to new issues and so tends ultimately to counteract the reluctance to bring out new issues.

But it is safe to say that the main cause of the decline of capital outlay is the decline of savings. The reduction of openings for investment is not such as to leave a part of the exiguous stream of savings unused. Nor if savings increased would the market fail to find capital outlay to employ them.

It is very important not to confuse the two quite distinct questions of investment and the creation of credit. By investment is meant primarily the acquisition of permanent capital assets or securities *out of income*. It is the process by which savings out of income are applied (mainly through the intermediary of the Stock Exchange) to increase the capital equipment of the community.

If investment of savings is supplemented by funds lent by banks, a creation of credit occurs. But that is because the acquisition of *any* asset by *banks* involves the creation of new bank credit. Investment securities provide a very convenient vehicle for the creation of credit, because they can readily serve as collateral for bank advances. But investment is quite a distinct process from the creation of credit.

When banks make advances to speculators and others for the purchase of securities, the effect *in the first instance* is to increase by the amount of the advances the resources available through the investment market for capital outlay. But as fast as the capital outlay is undertaken, the money

advanced is transformed into income ; it is used to pay the costs of production in the form of wages, salaries, interest and profit, and these incomes thereupon reappear as additional demand. Demand in fact may at any time be supplemented by the creation of credit, that is to say, demand may exceed what is spent out of income by the amount of new money created and put into circulation through the instrumentality of bank advances. But this additional demand forthwith generates additional production and additional incomes. The supplementing of incomes by the creation of credit is essentially a *transitional* process ; so long as demand exceeds incomes, incomes tend to increase up to the level of demand.

The increased demand thus arising is applied not especially to investment and capital outlay, but to products of all classes. Nevertheless, inasmuch as a decline of demand causes a disproportionate contraction of savings and of capital outlay, the revival of demand is likely to have a correspondingly favourable effect on savings and capital outlay ; it will tend to rectify the disparity. If the revival arises from a creation of credit, its efficacy in the direction of rectifying the disparity does not depend on the purpose for which credit is created. Credit created by commercial borrowing will be just as efficacious as credit created through the investment market.

Wages and Prices.

Of all the disparities that arise out of a collapse of demand, perhaps the most fundamental is that between wages and prices. Shrinkage of sales is met partly by reduction of output and partly by reduction of prices. The obstacle to the reduction of prices is that, so long as costs remain unchanged, the entire loss falls on profits. Production is curtailed, because purchasers cannot get a price which will yield them a profit. If wages are reduced, a price previously too low will become remunerative. If wages were reduced in proportion to the previous reduction of prices, and the disparity between wages and prices wholly eliminated,

profits would become normal and industry could be fully employed again.

This requires that the fall of wages should *overtake* the fall of prices. If the fall of wages starts a new fall of prices, so that the former process continues to lag as much as ever behind the latter, nothing is gained. Whether this happens will depend mainly on the action taken by the banking system.

The lag of the fall of wages behind the shrinkage of demand is the real cause of many of the other disparities. The disparity between the prices of manufactured goods and those of primary products arises because the prices of manufactured goods are more directly dependent upon costs. Unemployment occurs because the curtailment of output is a necessary condition of the maintenance of the prices of manufactured goods at the minimum level consistent with covering costs. Wages encroach on the margin available for profit, and there results a reduction of the incomes derived from profits and of the supply of savings derived from those incomes.

On the other hand, it would be an exaggeration to attribute the whole of the distresses characteristic of the depression to the intractability of wages. For, even if wages were perfectly pliable, the increase in the burden of debts in terms of wealth would still be a source of trouble.

CHAPTER V.

THE FINANCIAL CRISIS OF 1931.

WE have already referred to the impairment of the credit of borrowers owing to the depreciation of their assets. The association of trade depressions with financial crises is no new thing. All the great financial crises of modern times (except that arising out of the outbreak of war in 1914) have been caused in the same way. Credit restriction caused a contraction of demand, traders were faced with flagging sales and falling prices, their solvency was threatened, they were unable to borrow, and had recourse to forced sales. Forced sales accentuated the depreciation both of goods and of securities, and thus precipitated the failures which already threatened. Extensive failures of debtors assailed in turn the position of creditors, and so caused panic. The most important class of creditors was the banks, for on their solvency depended the whole structure of bank credit, which constituted the primary means of payment of the community.

This train of causes was at work in 1930 and the first half of 1931, and panic started with the failure of the Austrian Credit Anstalt in May, 1931. Essentially the failure was due to the embarrassments of industrialists in Austria and the neighbouring countries, to whom advances had been made. After the inflation that followed the war there had been an intense shortage of working capital in Central and Eastern Europe, and foreign banks had been led by the high rates of short-term interest to advance money to make good the shortage. For the most part these advances were made not directly to the industrialists but through banks.

The Credit Anstalt was the leading bank in Austria. It had received money from British, American and other

foreign banks in the form of interest-bearing time deposits, and had been enabled thereby to extend correspondingly its advances to its own customers. When the Credit Anstalt failed, its foreign creditors found these deposits locked up. The Austrian Government endeavoured to restore confidence by guaranteeing the deposits, but the money could not be withdrawn.

The sums involved were large, but the deadly significance of the failure was in the example it afforded of what might happen on a far larger scale in Germany. Foreign banks had been supplying the deficiency of working capital in Germany by short-term advances and credits amounting to hundreds of millions of pounds. Distrust once awakened, this money began to be withdrawn. On the 13th July, 1931, the entire German banking system was closed. Restrictions were placed on the foreign exchange market, of which the practical effect was to prevent dealings at any other rate of exchange than gold parity, and to limit the supply of foreign currencies for the purpose of paying for imports or of making external payments to what was forthcoming on those terms.

Import Restriction and Currency Depreciation.

It must be borne in mind that the deflation of which the depression was the outward sign had been working *through the foreign exchanges*. That is the essence of the gold standard. The task of the central bank is to keep the value of the currency unit equal to the prescribed amount of gold. But the market for gold is practically identical with the market for gold currencies, which is of course a branch (and under normal conditions much the most important branch) of the foreign exchange market. If the value of the currency unit is not kept up high enough, there results a loss of gold. As explained above (pp. 11-12) every country must adapt its incomes and its internal price level to the world price level. It must so regulate the purchasing power of its population in international markets, that it will not attract more imports than its exports will pay for (due allowance being made for its external debits and credits).

The first response of a country on the gold standard, when confronted with a fall in the world price level, is a restriction of credit, which tends to lower its internal price level in proportion to the external. If wages immediately fell in the same proportion, the requisite contraction of purchasing power would be effected without any loss of equilibrium (apart from the increase in the real burden on debtors). But if, as may be assumed, wages resist reduction, the contraction of income is effected through unemployment and a curtailment of profits. The country is impoverished.

We have seen that the prices of primary products undergo a greater fall than those of manufactured products, and the inference is often drawn that those countries which specialise in the production of primary products suffer more severely from the depression than the industrial countries. But what the industrial countries gain in price they lose in output, and on balance they may be no better off and may even be worse off than the others.

On the other hand, the primary producers are predominantly " new " countries, which suffer in the first place from the cessation of the importation of capital and secondly from being debtor countries obliged to pay the service of past indebtedness. The depression is tempered to the creditor countries by the cessation or reduction of the exportation of capital and by the receipt of income from past investments.

Whatever the varying circumstances may be, the ordeal of curtailing a country's purchasing power in world markets by impoverishing it is one which cannot be endured indefinitely. And when the strain reaches breaking point, there are two possible ways of escape.

One is that taken by Germany in July, 1931, the limitation of imports, supplemented so far as may be necessary by a restriction of dealings in foreign exchange. Instead of impoverishing the country further, there may be a direct limitation of its purchases abroad. Provided the limitation is effectively enforced, an expansion of demand at home is prevented from attracting imports and so from depreciating the currency.

The other alternative is the suspension of the gold

standard and the depreciation of the currency. The country's purchasing power abroad is then reduced through the fall in the value of the currency unit in which incomes are reckoned in relation to the foreign currency units in which world prices are reckoned.

This course had already been taken by some of the new countries in the early stages of the depression. Argentina and Brazil abandoned the gold standard before the end of 1929, Australia and New Zealand early in 1930.

The disorder to be remedied being an increase in the value of the monetary unit, a reduction of the value of the unit has the merit of being the most direct cure. The limitation of imports is a half-measure. It permits of a rise of the price level of imported goods, the supply of which is curtailed, and affords relief to those producers who compete with imports. But it leaves exporters to meet the full force of the fall in the world price level. Producers of home trade products gain an intermediate position; they are better off than the exporters but worse off than those who compete with imports.

The limitation of imports might theoretically be carried to such a pitch that the home trade producers would recover normal prosperity. But that would mean that the prices of imported goods would have to be forced up very high, and the protected industries would receive much more than normal profits. Moreover, the restrictions cannot be confined to "visible" imports, material commodities which pass through the custom houses; they must extend to every kind of external liability. They must therefore be applied to the foreign exchange market itself, and experience shows that whenever a large profit can be made by evading exchange restrictions, methods of evasion will be devised. An illicit market will grow up, and the restriction will become ineffective. Exchange restrictions have been (more or less) successfully enforced in Germany and some other countries since 1931 only because they have been associated with a deflationary régime not much less severe than would have been necessary without them.

To be complete, exchange restrictions may have to

extend to financial obligations. External short-term debts, interest payments, bond maturities and other liabilities may have to be subjected to a moratorium. The country taking such measures has to face the loss of credit associated with a default.

In spite of all these defects the policy of exchange restrictions was adopted by Germany in July, 1931. The explanation is to be found partly in the obligation to maintain the gold standard assumed by Germany under the Reparations Settlement which had resulted the previous year from the recommendations of the Young Committee, but still more from the overpowering dread of inflation by which most Germans had been obsessed since their experience of it in the years ending with 1923. They thought that if the country swerved but a little from the gold standard, the currency would once more be swept into the abyss, and their economic system would be involved in a state of chaos from which perhaps no way of escape could be found.

In reality the maintenance of parity by means of exchange restrictions cannot properly be called an adherence to the gold standard at all. The essence of the gold standard is not the convertibility of the currency into metallic gold to be used as the material of jewellers and dentists, but its convertibility into *foreign currencies*. To maintain parity by *preventing* the purchase of foreign currencies is to sacrifice the end to the means. This even applies in some degree in principle though not in form to a quantitative limitation of imports and to high import duties introduced as emergency measures. For they, in so far as they go beyond the degree of tariff protection ordinarily in operation, are devices to restrict the very trade that the gold standard is designed to facilitate.

Great Britain Suspends the Gold Standard.

The German crisis marks a stage in the progress of the depression. Till then unemployment had been the main pre-occupation. In the succeeding period, though unem-

ployment was becoming more and more serious, the outstanding anxiety arose out of *debts*.

The process of maintaining a favourable exchange by impoverishing the population had been in full swing in Great Britain. In July, 1931, the number of unemployed exceeded 2,800,000. British exports had fallen from £729,000,000 in 1929 (already much less in volume than in 1913) to £389,000,000 for the year 1931. The fall was the combined result of a decline of 15 per cent. in prices and of a contraction of 37 per cent. in volume.

The cost of unemployment benefit exceeded £100,000,000 a year, and nearly all of it was being met by borrowing. As a result of that, combined with heavy taxation and dwindling profits, the usual surplus of savings available for external investment had made way for a large deficiency. Whereas net external investment in 1929 had been computed at £100,000,000, it was estimated that in 1931 external investment fell short of debts called in, loans raised abroad, and capital assets disposed of, by £100,000,000. To that extent the country was living on its capital.[1]

Upon this situation there supervened the German crisis. British advances to German debtors were frozen up. There resulted a flight of foreign money from London, which presently attained the dimensions of a panic.

The predominant motives of this "flight from the pound" are not altogether clear. There was no fear whatever for the solvency of the great British banks. Apprehensions were concentrated on the currency. The money withdrawn consisted of balances and credits expressed in pounds sterling, and liable to depreciation in case of a suspension of the gold standard.

That it was rational to expect a suspension of the gold standard every economist must agree. The plain fact was

[1] The estimate was for the whole year, and therefore included the big credits raised in August, 1931, in France and America, totalling £130,000,000, so far as they were not repaid before the end of the year. But to the extent that these credits were used to pay off foreign short-term creditors, the two opposite transactions cancelled out in the balance of payments.

that the appreciation of gold was making the gold standard intolerable. But the people who hastened to turn their sterling holdings into dollars or francs did not say to themselves, "the appreciation of gold is making the gold standard intolerable." What then was in their minds? Why was the crisis associated with the monetary standard at all?

One consideration, and probably the principal one, was the budget position. A country can go on having budget deficits for ten, twenty or fifty years without its currency depreciating. But people who had seen the state of demoralisation to which public finances had been reduced in the greater part of Europe after the war, did not always discriminate between milliards and millions. They regarded *any* deficit as the accursed thing, and looked for the fulfilment of the curse in a complete collapse of the standard of value. No doubt this was rather a piece of spell-binding than an act of the understanding, but it may have contributed to the panic.

More rational was a reminiscence of the calculations made by those countries which had devalued their currencies since the war. France, Italy or Belgium had had to select a new value for the currency unit, and one consideration in the selection had been the burden of the national debt. Had the French franc been fixed too high, an internal debt of 300 milliards might have imposed an intolerable burden of taxation. An *insurmountable* budget deficit could only end either in a national bankruptcy or in a further depreciation of the currency.

Nor were people by any means ignorant of the intimate relation between currency appreciation and industrial depression and unemployment. Though they had not become accustomed to take account of an appreciation of *gold* in this connexion, the "stabilisation crisis" associated with the recovery of a depreciated paper currency had come to be well recognised. This experience easily linked up with the controversies arising from the return of Great Britain to the gold standard in 1925. If it was true then, as had been asserted, that the restoration of the old gold parity put the pound at too high a value, then it might well be

contended in 1931 that the crisis was finding out this weak point in the British economic system.

The closing of the German banks in July, 1931, put people in the mood for gloomy anticipations. And the direct loss of liquidity inflicted on London by the locking up of funds in Germany was a serious enough matter to provoke misgiving. Within a few days there appeared an important report on the economies required to rectify the British budget situation, which brought the matter into the political arena, and at the same time drew world-wide attention to the embarrassments and dangers arising in that direction. By the beginning of August the Bank of England had lost over £30,000,000 of gold. The reserve was reinforced by credits raised in Paris and New York, £50,000,000 obtained by the Bank itself on the 1st August, and then on the 28th August £80,000,000 obtained by the newly constituted National Government which had just replaced the Labour Government.

But these measures did not suffice to stem the flood. By Friday the 18th September the credits were exhausted, and on Monday the 21st, the gold standard was suspended.

INTENSIFIED DEFLATION.

The tension was suddenly relaxed. The pound fell to a discount which, after some oscillations, settled down in October and the first half of November, 1931, at about 20 per cent. The price level rose, and industry began to show signs of life. The deadlock in the credit market was for a moment resolved; there was no difficulty in inducing traders to borrow, and the opportunity presented itself of inducing a credit expansion.

But the crisis had led to a rise in bank rate. From the low level of 2½ per cent. that had ruled in the spring of 1931 it had been raised to 3½ and then 4½ in the latter part of July, and on the 21st September, contemporaneously with the suspension of the gold standard, it was put up to 6 per cent. In the first few weeks of unwonted industrial activity

the high rate had little effect. But presently pessimism began to reassert itself.

We have seen that 5 per cent. was an excessively high rate to impose at a time of depression in 1925, and that departure from precedent was an important contributory cause of our subsequent troubles. But if 5 per cent. was excessive then, when there were 1,300,000 unemployed, what is to be said of 6 per cent. in October, 1931, when the unemployed numbered 2,800,000?

Deflation continued unabated in those countries which had remained on the gold standard, and the price level in terms of gold was falling. In November, 1931, the rise in the British price level ceased, and it was soon succeeded by a gradual fall. When bank rate was reduced in February and March, 1932, from 6 to 3½ per cent. and the opportunity of revival had passed, borrowers no longer needed to be deterred. The deadlock had set in once again.

The suspension of the gold standard in Great Britain was the signal for crisis measures in many other countries. In the British Empire Australia and New Zealand had been off the gold standard for eighteen months, and the rest of the Empire quickly followed the example of Great Britain with the exception of South Africa (which remained on the gold standard till December, 1932). Norway, Sweden, Denmark, Finland, Portugal, Egypt and Japan had abandoned gold by the end of 1931.

On the other hand, most of the countries of Eastern Europe followed the example of Germany in resorting to emergency tariffs, quantitative limitation of imports, and exchange restrictions, to maintain their currencies at gold parity in the foreign exchange market. Exchange restrictions were likewise imposed in some South American countries, even in cases like Argentina and Brazil where the gold standard had been suspended and the currency was at a discount.

In a short time in fact the gold standard can hardly be said to have been in full operation anywhere outside the United States, France, Belgium, Holland and Switzerland, and their dependencies, though the appreciation of gold

continued to affect all those countries which maintained gold parity by the restriction of imports. The export industries of the latter countries were exposed to the full fury of the storm. And the appreciation of gold was itself accentuated by their action. Every country that restricted its imports thereby diminished the demand for goods in international markets, and so accelerated the fall of prices and aggravated the depression.

Nor was that the only circumstance making for renewed deflation. In the principal credit centres other than London cheap money had not been abandoned in July, and was still in operation at the beginning of October. The New York rediscount rate was 1½ per cent., and bank rates in France, Holland and Switzerland were 2 per cent. But this position was soon modified. The suspension of the gold standard by Great Britain seemed to threaten the foundations of the world's monetary system. The very same conditions that had made the gold standard an unendurable burden to Great Britain existed in the United States, dwindling exports, an immense number of unemployed, a large budget deficit, a mass of short-term credit suddenly frozen up in Germany and Eastern Europe. In addition the American banking system had been suffering from a multitude of failures (chiefly though not exclusively among the small country banks). The one respect in which the country was better equipped to maintain the gold standard than Great Britain was the magnitude of the gold reserve, which in the middle of September, 1931, had reached $5,015,000,000. In face of that figure a distrust of the dollar seemed at the time to many people very irrational. But countries are driven off the gold standard not so much by the exhaustion of their gold reserves as by the strain of remaining on the gold standard being found unendurable.

At any rate European holders of deposits, bills and other short-term funds in the United States, began rapidly to withdraw them. Not only commercial creditors but some central banks did so. By the end of October the United States had lost more than $700,000,000 of gold, and then the movement stopped. The mistrustful creditors had

taken their money, and those that remained had for the time being confidence in the dollar.

A big gap had been made in the assets of the Federal Reserve Banks, and it had been filled by the rediscounting of bills. In the first instance the banks bought the acceptances sold by the European holders, but, as these matured, the rediscounts of commercial paper rose to over $800,000,000 (January, 1932). The rediscount rate was raised to 3½ per cent. in October, and thus the easy credit that had ruled up to September, 1931, had made way for a considerable degree of stringency.

Reflation in the United States, 1932.

The vast American gold reserve had preserved the gold standard, but only at the cost of accentuating the depression. What was to happen next ? There is a powerful inflationist tradition in the United States, which can be traced back through the free silver campaign of W. J. Bryan to the old Greenback Party. The causal connexion between appreciating money and trade depression can be made a popular issue there much more readily than in Europe. The stringency of credit at the beginning of 1932 elicited protests. Inflationism began to become vocal in Congress. Inflationary projects (sometimes of an extremely naïve type) were put forward.

Credit restriction had been no part of the intentions of the Federal Reserve Banks. They were quite prepared to take measures to relax credit, provided the measures were so framed as not to run the risk of getting out of hand. Any plan for issuing a prescribed quantity of new paper money (for example, to meet the expenses of public works, or to pre-pay the " veterans' bonus ") involved this risk, in that it contained no provision for stopping the issue when found sufficient, or for withdrawing it when found redundant. A policy of inflation with the implied condition that it is not to be carried beyond the point at which equilibrium is restored has come to be called " reflation."

The plan adopted was a resumption on an unprecedented

scale of the purchases of Government securities in the open market. Under the Federal Reserve Acts the Federal Reserve Banks were free to buy Government securities, but could not hold them as backing for their note issue. Since they could hold them against their deposits and since in February, 1932, their holding of Government securities amounted to $740,000,000 in comparison with $2,000,000,000 of deposits, they could have done a good deal within existing powers. Nevertheless (partly, no doubt as a precaution against further losses of gold), there was passed an Act, known as the Glass-Steagall Act, giving the banks for twelve months the power to hold Government securities against their note issue.

The Federal Reserve Banks began in March, 1932, to buy securities at the rate of $20,000,000 a week, raised in April to $100,000,000 a week. The first effect (as in 1930) was to release bills and reduce rediscounts. The rediscount rate, which had been reduced from 3½ to 3 per cent. on the 26th February became ineffective. Three months bank acceptances fell in the course of April below 1 per cent.

Nevertheless, the revival of business hung back. Both the price level and the index of manufacturing production continued to fall. The reason was that the country was losing gold. The increase of the Federal Reserve Banks' assets arising from the purchases of securities was to a great extent offset by withdrawals of gold. The gold in the United States, having been reduced to $4,292,000,000 at the end of October, 1931, had recovered to $4,460,000,000 at the end of December, and was still as high as $4,367,000,000 at the end of April, 1932. But in May and June this was reduced by $448,000,000. The Bank of France had been disposing of her vast dollar assets. The bank's holding of foreign exchange had been reduced from 21·1 milliards at the end of December, 1931, to 6·3 milliards at the end of June, 1932, and the gold reserve had risen in the same period from 68·9 milliards to 82·1 milliards. The increase in the gold was thus 13·2 milliards or $517,000,000. For a time this absorption of gold had been largely met by hoards released from India. But in May and June, 1932, the French

demand was reinforced by an inflow of gold into other countries, not only into central banks but into private hoards. The hoarding of gold by individuals had begun in the autumn of 1931, and was apt to be stimulated by anything which caused distrust of any of the principal currencies of the world. In India people hastened to sell gold and hold rupees instead, because the rupee had already depreciated and there was a premium to be realised. And the same thing was to be seen on a smaller scale in England. But at the same time people in Europe hoarded gold in preference to currencies which were still at par, but might well fall to a discount in the future.

By the end of June, 1932, this drain of gold from the United States once again came to an end, and almost simultaneously a visible recovery in business began. The price index rose from 63·9 in June to 65·3 in September. The index of manufacturing production rose from 57 in July to 66 in September. The index of employment rose from 58·3 in July to 61·1 in October. The revival covered a wide range of industries and was more conspicuous in those producing consumption goods than in those producing capital goods.

But the revival did not last. By November the price level had relapsed to 63·9, the same figure as in June. By February, 1933, it had fallen to 59·8. Manufacturing production fell off, though in February the index was 62, and thus still substantially above the low point of July, 1932.

The open market purchases had in fact ceased in August, 1932. The drain of gold which stopped in June had been followed by a steady inflow. The gain by the end of the year was $600,000,000. Perhaps it was hoped that this expansion of the assets of the Federal Reserve System would make further purchases unnecessary. The whole purpose of the plan had been to swell the reserves of the member banks with idle money, and so to impel them to lend and create credit. And the surplus reserves of the member banks, which ordinarily do not in the aggregate reach $100,000,000, had increased in June, 1932, to $250,000,000 and by the end of the year to $500,000,000. Apparently

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with a view to keeping the surplus reserves at that figure and no higher, the Federal Reserve Banks sold Government securities to the amount of $90,000,000 in January, 1933.

But it was not possible to say *a priori* that $500,000,000 would be enough. And experience showed that it was not.

The United States Banking Crisis.

The situation had been complicated by the numerous bank failures. The total number of suspensions in the two years 1930 and 1931 was 3635 with deposits amounting to $2,624,000,000. Of these 1354 with deposits of $1,105,000,000 were in the four months September to December, 1931.

Such extensive failures must obviously mean not only a loss of confidence in the remaining banks in many localities but a serious restriction of banking facilities. In a country where branch banking is circumscribed by very narrow limitations and over large areas is not allowed at all, small banks spring up to meet the local convenience of isolated communities remote from any considerable urban centre. Each little bank is confined to a limited circle of customers nearly all engaged in the local agricultural industry. Diversification of risks is almost impossible, and a serious agricultural depression will work havoc among the banks.

When the banks fail, their depositors are driven to accumulate hoards of money to take the place of the deposits which are no longer available. Some, it is true, may borrow for the purpose, but this does not in effect mean an expansion of credit, for the borrowing does no more than replace a part of the bank credit annihilated. And some of the money will be saved out of income.

Wherever the money comes from, the result is to increase the amount of money in circulation *required* for a given amount of incomes. By February, 1932, the currency in circulation in the United States had risen to $5,627,000,000 as compared with $4,598,000,000 in February, 1931. Hoarding to an amount exceeding $1,000,000,000 had to be

provided for before a monetary expansion could have any effect at all.

The Reconstruction Finance Corporation, instituted in February, 1932, was designed to assist banks threatened with failure, and was enabled to make advances on less rigid conditions than the Federal Reserve Banks. For a time there was a lull in the failures. In June, 1932, there was a fresh outbreak, but, with the improvement in general business that then ensued, they subsided again.

At last the renewed set-back in business that began in November, 1932, put an unendurable strain on the banking system. The epidemic of insolvency which had by that time already raised the total of failures since the beginning of 1930 to 5000, came to a head. Some of the larger banks in the State of Michigan applied for assistance from the Reconstruction Finance Corporation. The Act creating that body required the granting of loans by it to be made public, and the publicity had the grave disadvantage of giving a shock to the credit of the borrowing institution. Negotiations for remedial measures broke down in the middle of February, 1933, and the entire banking system of the State of Michigan was closed for ten days through the declaration of a bank holiday by the Governor. The effect may be compared to that of the failure of the Credit Anstalt in Central and Eastern Europe. Conditions in Michigan were typical of those in the greater part of the United States. "Bank holidays" were declared in one State after another. In Kentucky the Governor, having no other statutory power of declaring a bank holiday, proclaimed a "thanksgiving." The climax came on the 3rd March, the day before the installation of the new President, when it was decided to close all the banks in the States of New York and Illinois.

The experience of Germany in July, 1931, had been repeated and the underlying cause was the same. The increase in the wealth value of the monetary unit had made debtors insolvent, and the banks had been swept away by the flood that submerged their customers.

Suspension of the Gold Standard by the United States.

The bank failures of the preceding three years had been accompanied by a marked growth of hoarding. People had accumulated hoards of currency not only or even mainly because they distrusted the banks, but because in many cases there were no banks left open within convenient reach. But there had also been a slight but not altogether negligible tendency to hoard gold coin and gold certificates in preference to other kinds of currency. That was a sign that people were seeking out those forms of currency which were definitely tied to gold. (It must be remembered that the gold certificates were instituted during the Greenback period expressly to enable people to handle gold in the form of paper at a time when the currency of the country was inconvertible paper. The gold certificate, though it was made legal tender in 1919, remains simply a title to gold, and the full gold equivalent of all the certificates in circulation is held in trust by the U.S. Treasury.)

When the bank crisis of February, 1933, broke out, large sums in gold were withdrawn by foreign holders of dollar balances, and at the same time there was a sudden increase in the hoarding of gold currency at home. There was in fact a renewed distrust of the United States remaining on the gold standard. Once again it was shown that a gigantic gold reserve was no absolute safeguard of the gold standard.

Indeed the general insolvency was clear evidence that the gold standard *could not* be maintained. Measures for dealing with the bank crisis were urgently needed. Somehow or other the sound banks must be enabled to re-open. They could only re-open if their power to pay their depositors were put beyond doubt. They must be given unlimited credit facilities, which could only be afforded by some agency, whether it were the Federal Reserve System or the Government, which could issue unlimited currency.

But if the Federal Reserve System or the Government undertook to issue unlimited currency, how could it at the same time undertake to convert the currency into gold? It might be argued that, once all doubt as to the powers of

the banks to pay their depositors in currency was removed, the panic would subside, and there would be no demand for gold. But that was not certain.

The new Congress, elected in 1932, came into existence on the same day as President Roosevelt entered office, the 4th March, 1933, and on that day the old Congress ceased to exist. It was impossible for the new Congress actually to meet for the transaction of business before the 9th of March, and in the interval the President took action under a war-time Act of 1917, which had never been repealed. The bank holidays proclaimed in the various States were replaced by a nation-wide bank holiday, modified by licences permitting payment of money to customers for certain urgent purposes. The banks were forbidden to pay out gold or gold certificates, and the export of gold was forbidden.

These emergency measures were regularised when an Act of Congress was passed on the 9th March, confirming, with suitable amendments and extensions, the powers under which the President had acted.

So far as the banks were concerned, those which could be certified to be sound and solvent were allowed to open normally in the following week (13th-15th March). Those which could not be certified either remained closed or were opened conditionally, subject to licences limiting their activities. Provision was made for an issue of Federal Reserve Bank Notes (which do not require any gold reserve) against suitable collateral.

The prohibition on the export of gold was retained, and there was further a prohibition of the hoarding of gold and gold certificates, under severe penalties. These measures constituted a suspension of the gold standard. The convertibility of the currency, Federal Reserve Notes and Greenbacks, as well as gold certificates, into gold remained formally untouched, but the prohibition of export severed the link between gold in the United States and gold or gold currencies abroad. And the prohibition of hoarding rendered the convertibility of the currency practically nugatory. The holder of a Federal Reserve Note could take it to the Treasury at Washington and demand gold for it. But when

he got the gold he was forbidden to hold it. He could only deposit it in a bank, and the bank was bound to deposit it in a Federal Reserve Bank. Naturally no one ever dreamed of asking for gold.

But despite this suspension of the gold standard the dollar did not at first depreciate. Licences were given for the export of gold, and there was no very great outflow. The banking crisis had been surmounted without the formal suspension of the gold standard taking material shape in a premium on gold.

But what that meant was that the country was reverting to the very conditions which had caused the crisis. So long as licences could be obtained for the export of gold whenever the foreign exchanges reached the gold export point, the dollar was being maintained at the intolerably high value that had made industry unremunerative and debtors insolvent. And presently it became clear that the parting of the ways had been reached.

By the beginning of April industry was showing signs of revival. A banking crisis, involving the sudden extinction of a mass of purchasing power, threatens severe deflation. But when it is taken in hand with measures of currency expansion, this deflationary effect may be counteracted and actually reversed. The people whose deposits are lost are not in general themselves insolvent. What they have lost is usually no more than a working balance of cash, which can be readily replaced by fresh advances, provided steps are taken to put what is left of the banking system into working trim. The loss of idle time deposits need not interfere very greatly with the progress of industry.

The formal suspension of the gold standard, relieving traders from fear that their needs for accommodation would meet with any obstacle from a scarcity of currency, was an encouragement to expansion and activity. Early in April, 1933, the foreign exchange position became noticeably adverse. A slight delay in granting licences for the export of gold was felt in a rise of the quotation of French francs about 1 per cent. above the gold export point on the 13th April, the day before Good Friday. For a few days markets were almost suspended by the Easter holidays.

On the 19th April the Secretary of the Treasury had before him a number of applications for licences for the export of gold. The significance of the decision to be given became vividly clear. A licence was a device for sustaining the value of the dollar. It was an instrument of torture designed to inflict further distress on a suffering nation. The pen refused to write the signature. No licences were to be granted.

Revival of Business.

At once the dollar fell. The discount soon exceeded 10 per cent. The suspension of the gold standard had become a reality.

The impulse given towards the revival of industry was instantaneous. It was like the magic change of spirit that seized the Allied line at Waterloo in the late afternoon, when there passed through the French ranks the terrible murmur "the Guard is giving way," and the cohesion of their onset was at last loosened. From one end of the field to the other positions where a few yards had been battled for all day were occupied, passed and left behind. The eagles (258 grains, nine-tenths fine) were in full retreat.

Manufacturers pressed forward to fulfil a stream of orders such as they had not known for years. Wheat and corn, cotton, silk and wool, non-ferrous metals, rubber, almost every primary product found increased sales at higher prices. The steel industry, which at one time in March had been working at 15 per cent. of capacity rose in three months to 59 per cent. The consumption of rubber in June exceeded the highest monthly totals of 1929. The index of manufacturing production, which relapsed from 66 in September, 1932, to 57 in March, 1933, advanced to 99 in July, 1933, the highest since May, 1930. The index of factory employment rose from 56·6 in March to 70·1 in July, and that of factory pay rolls from 36·9 to 49·9. The Department of Labour Price Index rose from 59·8 in February, 1933, to 69·7 on the 22nd July, the Farm Products group rising in the same period from 40·9 to 62·7.

This revival was a close parallel to that which occurred in Great Britain after the suspension of the gold standard in September, 1931. On that occasion bank rate was put up to 6 per cent., and renewed deflation and depression followed. In the United States, on the other hand, not only was cheap money continued (the 3 per cent. rediscount rate in New York being completely ineffective), but wide and unprecedented powers were conferred on the President with a view to a policy of inflation being carried out.

The policy was fitly symbolised by the inclusion of the clauses giving these powers in an Agricultural Relief Bill which was already before Congress. It was the agricultural mortgage situation which had played the principal part both in bringing down the banks in the country districts, and in inspiring the political agitation for inflation. The shrinkage of the money value of the annual agricultural output from $11,800,000,000 in 1929 to $5,100,000,000 in 1932 had made a burden of mortgage indebtedness estimated at $9,000,000,000 unbearable. The Agricultural Relief Bill had been planned to bring about a rise of prices of the principal agricultural products by a restriction of output, to be compensated from the proceeds of new taxes on the processing or manufacturing of the products. A roundabout way of relief! The sweet simplicity of inflation presented an attractive contrast.

The amendment moved in the Senate with the support of the Administration, and duly incorporated in the Bill, gave the President power, at his discretion, to take three distinct inflationary measures. In the first place he could require the Federal Reserve Banks to buy Government securities to an amount not exceeding $3,000,000,000. That compares with $1,100,000,000 bought in the course of the "reflation" experiment in March-August, 1932, and the prohibition of export has removed the possibility of the efficacy of the policy being impaired, as it was then, by a loss of gold.

Secondly, as a concession to the form of inflationism which believes in "printing paper money," the President was empowered to issue "Greenbacks" under the Act of 1862

and subsequent Acts to an amount not exceeding $3,000,000,000. (It may be mentioned that the subsequent Acts include the Resumption Act of 1875 and the Gold Standard Act of 1900, under which Greenbacks are still convertible into gold at the Treasury, but convertibility has ceased to be operative, and Greenbacks have the advantage of being legal tender.)

Thirdly the President was empowered at his discretion to reduce the gold content of the dollar by any amount not exceeding 50 per cent.

For a month the depreciation of the dollar had no other source than in the minds of the market. The Administration quite clearly and certainly *intended* the dollar to fall, and every one dealing in the market was bound to take account of that intention. Towards the end of May the Federal Reserve Banks began to buy securities. By the end of June they had increased their holding of Government securities from $1,837,000,000 to $1,998,000,000, and the dollar was at a discount of more than 20 per cent. The New York rediscount rate was reduced from 3 per cent. to 2½ per cent. on the 26th May, and even the lower rate remained completely ineffective.

In July, however, the open market purchases slackened off. And other circumstances contributed to check the progress of depreciation. Proposals were made (though not adopted) for stabilising the dollar in terms of gold by international agreement. In the third week of July the New York banks took steps to discourage Stock Exchange speculation by increasing their margin requirements. Above all, on the 20th July, a plan for applying the minimum wages and maximum hours of the National Industrial Recovery Act throughout the whole range of American industry and trade without delay was put forward by the Administration. Profits were threatened.

The discount on the dollar had reached 30 per cent. on the 10th July, but, from the 20th July, it met with a rapid and serious reaction. There were fluctuations, but the discount did not again touch 30 per cent. till the middle of September. And the recovery of business was likewise interrupted.

There was some tendency to regard the policy of minimum wages and maximum hours as an *alternative* to monetary depreciation as a remedy for the depression (see below, pp. 167-9). Nevertheless, the policy of inflation was not altogether discontinued. The purchases of Government securities proceeded, though at the reduced rate of $10,000,000 a week.

In the latter part of August they were once again accelerated up to $35,000,000 a week, and the dollar dropped again. At the beginning of October the discount on the dollar had reached 36 per cent., but it then reacted to 30 per cent.

That is still far short of the equilibrium level. In fact, the dollar has not even yet attained the same degree of depreciation as the pound. If the increase of costs by the National Industrial Recovery Act has offset the relatively heavy reductions of wages in the United States, American business is as far short of equilibrium as British.

The surplus reserves of the member banks have reached the unprecedented amount of $700,000,000. If, nevertheless, the progress of depreciation is not fast enough, there remains in reserve the power conferred on the President of reducing the gold contents of the dollar. To fix definitely the future gold equivalent of the dollar at a time when the future purchasing power of gold is utterly uncertain would be most unwise. But the section of the Act which conferred this power on the President seems to have been so drafted as to enable him to modify the gold equivalent of the dollar not merely once but over and over again, "whenever" certain contingencies appear to him to require it.

CHAPTER VI.

OVER-PRODUCTION OF NATURAL PRODUCTS.

MANY people hesitate to accept a purely monetary explanation of the depression. Money is not wealth; it only represents wealth for the purposes of exchange. Money is the form, while wealth is the substance. Is it possible that such an economic cataclysm is to be traced to so subsidiary a portion of the economic system?

But all economic activity is founded on the pecuniary motive. Money is the nervous system of industry. People produce for profit. The pecuniary motive is as essential to economic activity as the disciplinary motive to the functioning of an army. In 1917 the Russian army was reduced to powerlessness because the disciplinary motive was destroyed by the revolution.

Credit restriction tampers with the free flow of money. The shrinkage of demand impairs the operation of the pecuniary motive. The failure of the nervous system produces paralysis. No economic disturbance could be more far-reaching.

What are the alternative explanations of the depression?

We have already had something to say about over-production. We have shown how over-production in some industry or group of industries may be the starting-point of a general shrinkage of demand. But it is only the starting-point. If by any means the flow of money, through incomes and outlay, can be maintained undiminished, there will be no general depression. Adversity in some industries will be accompanied by prosperity in others.

It is frequently argued that the prosperity of the

economic system depends upon the exchange of products between the primary producers and the manufacturers; if agriculture is depressed, the manufacturers will find their markets flagging, and the depression will spread to them. But in reality the demand of the agricultural producers has no such unique importance. In the United States in 1929 the national income is estimated to have been $85,000,000,000 and of that total only $11,800,000,000, or about one-seventh, was derived from agriculture.

Undoubtedly a prominent part is taken in international trade by certain countries which specialise in natural products, and may be classed as "primary producers." They export the greater part of their output of natural products, and import manufactures in return, and they constitute important markets for the great industrial countries.

If the world output of some important natural product happens to be unusually abundant, there may result a glut of supply and a collapse of prices, which will cause serious distress to the producing countries. Their exports, though increased in volume, will be reduced in total value. An adverse balance of payments will involve them in a credit restriction or a currency depreciation, and their purchasing power in international markets will be correspondingly diminished.

But it is not to be inferred that depression will spread from them to the industrial countries which find markets in them. An industrial country, receiving abundant and cheap imports of the natural products affected, will experience a *favourable* balance of payments. Purchasing power will be set free to buy other products. It may be objected that to assume that purchasing power as a whole is undiminished is to beg the question. But the favourable balance of payments itself induces a relaxation of credit, and purchasing power as a whole in the country is likely therefore to be actually increased. The industrial countries become more favourable markets both for their own and for one another's products.

That this is no merely theoretical argument is shown by the general acceptance of the view, based on the experience

of the nineteenth century, that abundance of natural products promotes good trade in the industrial countries. It is a view that was hardly challenged till the harvest of 1928 produced a surplus of some hundreds of millions of bushels of wheat. The trouble that followed then was not, as was hastily and superficially inferred, that the world was helpless before the problem of disposing of a surplus equal to a few weeks' supply of wheat, but that people began hungering for gold instead of bread. A gold famine meant that not merely wheat but *everything* became "over-supplied."

The effects of a glut of a natural product can be similarly traced within the limits of one country. If the price of wheat falls, owing, for example, to a glut in world markets, the purchasing power of the agricultural producers in the country is diminished. If the country is neither an exporter nor an importer of wheat, its balance of payments is unaffected, and no restriction or relaxation of credit is involved. If the total of incomes is unchanged, then other industries will gain the demand which the farmer loses, and no depression will result on balance.

These cases illustrate the general principle that depression is essentially a shortage of demand. So long as demand, in the sense of the flow of money offered in exchange for products, remains undiminished, economic activity will continue. Demand should indeed expand, as the community progresses; and, if the monetary system failed to allow an expansion of incomes in terms of money to keep pace with growing wealth and numbers, a curtailment of activity would result.

But so long as this flow of money is adequately maintained, depression in one direction cannot fail to be compensated by activity in others. Depression and activity will fulfil their economic purpose of diverting productive resources from the channels where they are less needed to those where they are more needed. This process of diversion may perhaps be accompanied by friction and distress, but that is a different matter from general depression.

Over-production of Manufactures.

The argument from over-production is sometimes applied to manufacturing industry. Certain industries, it is said, are over-developed; people are misled by an expanding demand for a manufactured product to extend the capacity of the industry beyond what the demand will really justify. When the increased output is put on the market, the price of the product falls and becomes unremunerative. The newly extended industry is under-employed and earns an insufficient profit.

Professor Sprague, speaking before the Royal Statistical Society in June, 1931, expounded what he called the "equilibrium view of trade fluctuations." He attributed the depression to the unequal development of industries. If an industry prospers, "profits are largely reinvested in plant, and, because profits are large, additional capital is readily granted. Over-development in such circumstances is well-nigh invariable; witness the automobile industry in the United States, with a present estimated capacity of something like 50 per cent. above any profitable demand in a normal year."[1]

It is not at all clear that this concentration of the extension of capacity upon the more profitable industries tends on the whole to disturb equilibrium. It may, of course, be overdone in particular cases. But that brings its own corrective. For the over-developed industries become unprofitable, and (an aspect of the matter that Professor Sprague did not deal with) the under-developed industries become abnormally profitable *unless* there is a shrinkage of demand as a whole.

The war is often held responsible for an over-development of certain industries, which, it is said, has contributed ever since to an unbalanced condition of production. The capacity of the iron and steel and shipbuilding industries, and of some branches of the engineering and chemical industries was extended under pressure of the war demand far beyond peace-time necessities.

[1] *Journal of Royal Statistical Society*, 1931, p. 545.

But it is quite a mistake to suppose that this would tend to cause depression. It would tend to cause loss to the proprietors and shareholders of the over-extended industries. But, so far as employment is concerned, it would tend to make those industries more active than they would otherwise have been. They would produce a greater output and employ more people, and the fall of the prices of the products due to the excess output would merely reduce profits. The demand upon the instrumental industries for fresh plant and equipment for the industries thus rendered unprofitable would be curtailed, but the openings for new capital outlay in other directions would be all the greater. In fact, whenever capital outlay has been misdirected, the aggregate demand for capital goods tends, *on balance*, to be increased rather than diminished. The arrears of capital outlay in those industries which have been neglected have to be made up.

Over-investment.

Adversity in one industry arising from over-development is thus no more likely than the glut of a primary product to cause general depression. But according to some advocates of this explanation, the danger arises in the whole group of industries producing capital equipment, sometimes called the "instrumental" industries.

Suppose that for any reason an excessive stimulus is given to the instrumental industries. The effect will be to increase the capacity of *other* industries. In due course there will follow increased output. But, if the extension of capacity is excessive, the increased output will occasion a fall of prices greater than was anticipated, and the disappointment will make further extensions of capacity unattractive. There will therefore be a big decline in the activity of the instrumental industries. And it will be useless to look for relief in any increased activity of the other industries, for it is just because they have become insufficiently remunerative that the instrumental industries are under-employed.

A conspicuous feature of the prosperity which was

brought to an end in 1929 was the speculative activity on the Stock Exchanges, and particularly in the United States. Is it not plausible to explain the ensuing depression as due to an over-production of capital equipment financed by this speculative market, and a consequent glut of manufactured goods ?

But what is the order of magnitude of the extensions of capacity that can be effected by current capital outlay ? For Great Britain we have from Mr. Colin Clark [1] an estimate of the capital outlay for a series of years as follows (in £ millions) :

	Capital Outlay.	Deduct Depreciation.	Net Addition to Fixed Capital.
1924	589	391	198
1925	607	386	221
1926	609	384	225
1927	605	404	201
1928	604	433	171
1929	650	438	212
1930	648	437	211
1931	624	439	185

The average annual addition to the fixed capital in the country in the eight years, after allowing for depreciation, was thus only £203,000,000. That is a little more than 1 per cent. of the £18,000,000,000 of national wealth as estimated by Sir Josiah Stamp for 1928.[2] After every deduction has been made from Sir Josiah Stamp's estimate for capitalised land values, monopoly values, goodwill, etc., we may confidently say that the annual increment of fixed capital was well under 2 per cent. In the United States, the proportion would be greater, possibly as much as 3 per cent. But in any case the possible extension of the capital assets of either country as a whole can only be very gradual. One industry or group of industries may at some time get much more than

[1] *The National Income*, 1924-31.

[2] See *Journal of the Royal Statistical Society*, 1931, Part I.

its share of capital outlay, and its capacity may be extended by, say, 10 or 20 per cent., or even more, in a few years. An extension of that magnitude might, of course, encounter a disappointment in that the increased output could not be sold at a remunerative price. But, for industry as a whole, a purely *quantitative* extension of capacity, consisting in the installation of new capital equipment identical in type with that already in use, limited as it is by the supply of savings on the one side and by the productive resources of the instrumental industries themselves on the other, could not possibly proceed at such a pace as to cause a sudden glut of consumable products.

Technological Progress.

But in practice extensions of capacity are not always, or even usually purely quantitative. With the progress of invention, technological improvements are constantly being introduced, and the mere replacement of old plant by new will often mean an increase of output far more than in proportion to any net addition to capital valued quantitatively. When a big increase in capacity is thus brought about in an industry, there may result a glut of the product. The technological improvement achieves a decrease in real cost, but as the price of the product is reduced to correspond to the cost, the demand fails to expand in proportion. The aggregate income yielded by the industry to those engaged in it falls off in spite of the increase of output. The loss of income takes the form partly of the discharge of labour, partly of the disuse of existing capital, partly of disappointing returns to new capital.

Here again, so long as only a few industries are affected at any one time, there is no reason why general depression should result. Provided credit policy maintains the flow of money undiminished, adversity in some industries will be associated with prosperity in others, and the transfer of productive power from the former to the latter will proceed.

It cannot be assumed that the transfer of productive power will be accomplished either quickly or smoothly.

The capital equipment displaced by the new improvements will for the most part be fit only for the scrap heap. Labour, especially if highly specialised, may experience great difficulty in finding new employment. But there has been some tendency in the past to form an exaggerated estimate of the obstacles in the way of the transfer of labour, because the need for transfer has always been at its greatest at times of depression when the expanding industries have been least active and least able to take on new hands. At a time of technological progress new industries and new branches of old industries are constantly confronted with the problem of recruiting labour. Every man they secure is facing the risks and difficulties of a " transfer of labour." And under modern conditions there are many occupations which are common to several different industries, so that a man displaced from one can find employment without difficulty in another.

The application of technological improvements to any one industry is likely to be intermittent, important increases in productivity occurring only at irregular and possibly long intervals, but for industry *as a whole* the intervals will overlap and average out, so that the process will be approximately continuous. Professor Schumpeter, however, would explain the trade cycle (and therefore at the same time the phenomenon of trade depressions) by fluctuations in the progress of technological improvement. The practical application of science to industry would tend to come at one time in a rush of " innovations," which would be followed by a reaction. According to this and other similar theories, the depression would arise not so much from a glut of the products of those industries to which the technological improvements have been applied, as from the relative inactivity of the instrumental industries by which the new equipment embodying the improvements is manufactured.

Undoubtedly one of the most striking characteristics of trade depressions is the contraction of output of the instrumental industries. But, as we have shown above (pp. 40-1), this is directly due to the shrinkage of savings available for investment. One of the outstanding " innovations "

marking modern industrial progress was the introduction of railways, the practical application of which may be said to date from 1830. By 1835 the promotion of new railway undertakings in England was in full swing. In 1836 and 1837 railways had become " a fashion and a frenzy." Reaction followed. As Professor Clapham says: " Coinciding as it did with an over-rapid development of provincial joint-stock banks, whose business was unregulated, with rising food prices and with Anglo-American trade relations which both produced a drain of gold from England to America and made unsound business, this preparatory railway mania of 1836-37 left even the survivors, above all the half-built survivors, which were the vast majority, in a difficult position." [1] Promotions were almost suspended. In the two years 1836-37, thirty-nine railway bills had been passed by Parliament; in the four years 1838-41 only six.

When in 1844 a new and more famous " railway mania " began, it was no longer an " innovation." It was beginning where the mania of 1836-37 had left off. And if we ask why it was suspended, the answer, beyond any doubt, is that the obstacle was financial. The year 1837 saw a financial crisis, and the beginning of a period of falling prices and trade depression, which has become famous as the " hungry 'forties." The expansion of credit had outrun the gold supply. The devaluation of the American gold dollar in 1834 had in effect substituted a gold standard for a silver standard in the United States and created a new demand for gold, which made itself felt when the inflationary movement then raging in that country collapsed. In 1839 the recrudescence of the financial crisis led to the Bank of England raising its discount rate for the first time above 5 per cent., and the Bank had recourse to credits in Paris and Hamburg to protect its rapidly ebbing reserves. It was deflation that suspended railway development after 1837. Business became unprofitable, the stream of savings that had been pouring into the investment market dried up, and capital outlay on the most promising of " innovations " had perforce to be limited.

[1] *Economic History of Great Britain*, Vol. I., pp. 388-9.

The resumption of railway development coincided with a trade revival which started with an upward turn in the price level in the latter part of 1843 and reached its climax with the financial crisis of 1847. The revival was associated with credit relaxation and cheap money, and the financial crisis occurred when the growing demands upon the gold reserve imperatively required a reversal of the easy credit policy. On this occasion the railway mania far surpassed that of the 'thirties, and it came to a similar abrupt end.

The inference to be drawn from this experience is that, however profitable a new invention involving heavy capital outlay may be, the rate of progress of its exploitation is limited by the resources of the investment market. When business was prosperous, and profits high, savings were plentiful, and it was easy to float railway projects. When depression supervened, and the investment market became unfavourable, progress had to be suspended, though the ultimate prospects of the railways were unchanged. The setback to business must, of course, have deterred promoters in some degree by making the ultimate profit-yielding prospects of the railways look less promising. But they were making calculations regarding the distant future, and they were likely to adopt some estimate of an average state of trade. And in any case it is clear that their flotations were bound to be limited to the resources of the investment market. Savings can be supplemented by bank advances, whether to speculative investors, to stock-jobbers or to railway contractors, but advances were more likely to be called in than extended in the credit market of 1837 or 1847.

Investment in the United States.

If we turn now to the conditions of the years preceding the American stock market crisis of 1929, we may similarly conclude that the amount of capital outlay, including that on the technological improvements then in course of adoption, was regulated by the resources of the investment market. The sudden appearance of a new invention or improvement ripe for exploitation might make a heavy call

upon those resources. The prospect of an especially profitable flotation, at a time when people were eager to speculate in industrial shares, might lead to an expansion of bank advances. But the fact is, that the capital outlay in those years in the United States was by no means so large in proportion to the national income but that it might have continued undiminished so long as the national income continued undiminished.

The national income in 1929 has been estimated at $85,200,000,000. We have no exact estimate of the capital outlay, but contracts for construction (which cover a very large proportion of the total) [1] are available for thirty-seven States (excluding the three Pacific States and the eight mountain States). They rose from $6,000,000,000 in 1925 to $6,600,000,000 in 1928, and fell to $5,750,000,000 in 1929. New capital issues also cover a very considerable proportion of the total capital outlay. If from the total new issues we exclude foreign issues and investment trusts (the latter representing a mere duplication), we get a figure of $6,000,000,000 for 1928 and one of $7,200,000,000 for 1929.

We may estimate the annual capital outlay of the United States in 1928 or 1929 at something like $10,000,000,000. All but a quite minor proportion of this outlay was met from savings. Savings were no doubt supplemented by bank advances, but the annual increase of these bank advances devoted to the construction of fixed capital cannot have been more than some hundreds of millions. We may quite confidently say that, had the national income remained at $85,000,000,000, the annual supply of savings would have sufficed to maintain a capital outlay not far from $10,000,000,000.

To see what happened after 1929, we may turn to the following table, which compares the construction contracts and capital issues on the one hand with the national income and the profits of companies on the other (in $ millions):

[1] But it should be borne in mind that a considerable part of this construction is *replacement*, and not new investment.

	Construction Contracts.	New Issues[1] (Domestic).	National Income.[2]	Company Profits.	
				Principal Companies.[3]	Income Tax Returns.[4]
1925	6006	5134	79,200	2179	6553
1926	6381	5199	80,600	2480	6695
1927	6303	6055	79,300	2308	5553
1928	6628	6006	82,400	2675	6795
1929	5751	7202	85,200	2988	7551
1930	4523	5792	70,700	2016	2053
1931	3093	2849	52,700	1183	[-1524][5]
1932	1351	1649	40,000	527	—

In the income tax returns, the collapse of profits in 1930 and 1931 is no doubt exaggerated by losses on stocks of goods. Since the balance sheets of the companies assessed to income tax in 1929 showed inventories exceeding $20,000,000,000, the contraction in value may easily have been more than $6,000,000,000, to be divided between the two years. Under the American income tax law losses on sales of securities and other capital assets are allowed as deductions from income. By excluding financial concerns from the total, this factor has been reduced to a minimum.

In view of the collapse of profits, we have no need to suppose an exhaustion of opportunities for the exploitation of technological improvements, in order to explain the enormous falling off of capital outlay. And there is clear evidence that the falling off of capital outlay was not disproportionately great at the beginning of the depression. The following table shows construction contracts and new issues by half years, together with the average yield of bonds

[1] Excluding refunding operations and investment trusts.

[2] National Industrial Conference Board's Estimates. See an Article by Professor Morris A. Copeland in the *Journal of Political Economy*, December, 1932, p. 773; also the *Financial Chronicle*, 22nd April, 1933, p. 2673.

[3] Excluding public utilities, the series for which is only available from 1928.

[4] Excluding banks, brokers and other financial concerns.

[5] Incomplete returns.

(other than Government securities) at market prices, and the index of share prices :

	Construction Contracts.	New Issues.	Bond Yield.	Share Prices.
1927 1st half.	3188	3365	4·50	110
2nd " .	3115	2690	4·45	126
1928 1st " .	3445	2969	4·40	141
2nd " .	3183	3037	4·57	158
1929 1st " .	3012	3941	4·67	188
2nd " .	2739	3261	4·72	193
1930 1st " .	2638	3970	4·57	166
2nd " .	1885	1822	4·46	133
1931 1st " .	1792	2014	4·43	109
2nd " .	1300	835	4·97	79
1932 1st " .	667	894	6·30	48
2nd " .	684	755	5·71	49

These statistics show that the depression did not *start* with a collapse of capital outlay, whether due to the exhaustion of " innovations " or to the adverse state of the investment market after the Wall Street crisis. The new capital issues in the first half of 1930 were actually the highest on record. The market may be said to have recovered from the shock of the crisis, and the index of share prices in April, 1930, was actually higher than at any time before the beginning of 1929. The long-term rate of interest reacted slightly from the rise that occurred in 1929, but did not fall so low as to imply stagnation in the investment market. The market, in fact, was active and favourable.

By the time a really heavy decline of capital outlay occurred in the latter half of 1930, the depression was already in full swing, and the contraction in the national income had become serious and that in profits enormous.

A Glut of Consumable Goods.

But if the depression did not originate in the capital market, there is still the alternative that a swollen capital outlay combined with technological improvement may so

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have increased the supply of consumable goods as to cause a glut. Would not a glut cause demand to flag whatever the banks may do ?

That demand would flag if this state of things were allowed to bring about a *decrease in incomes* needs no demonstration. But presumably by a " glut " is meant a condition of things which causes a decline of demand even when people have undiminished incomes to spend. Suppose that the American people, with incomes of $85,000,000,000, find that technological improvements have so increased the supply and lowered the prices of consumable goods that they can satisfy all their needs for consumable goods by a diminished expenditure. Their expenditure on consumable goods falls from, say, $75,000,000,000 to $70,000,000,000, and their savings rise from $10,000,000,000 to $15,000,000,000.

A dislocation on that scale would indeed be a serious matter. Capital outlay could not be increased at a moment's notice from $10,000,000,000 to $15,000,000,000. In face of the disappointment caused by the decreased demand for consumable goods, a very big concession in the form of a heavy fall in the long-term rate of interest would be required, and even that would take time to work its effect.

What, then, ought to be the action of the banking system under such conditions ? Should an effort be made to restore the demand for consumable goods to $75,000,000,000 by a monetary expansion ? *If there were literally a glut,* this might not be practicable. For on that assumption, even if incomes were increased in terms of money, the quantity of consumable goods demanded would not increase. The only effect would be an increased margin of saving, which would be hung up like the rest in the investment market, pending an increase in capital outlay.

On the same assumption, it would even be impossible for the banking system to maintain the demand for consumable goods undiminished at $70,000,000,000. For the under-employment of the producers of consumable goods would put out of action some of the normal number of consumers. The vicious circle of deflation would be joined, and the banks by themselves would be helpless to stop it.

This is a situation which we shall have to consider in more detail later on. At the present stage we need say no more about it than that it depends upon the hypothesis of a literal glut of consumable goods, such that no increase in the resources of the population can bring about any increase in the demand for them, and that it is quite certain that no such glut existed or impended in the United States at the end of 1929.

Technological progress had undoubtedly been providing an increased supply of a great variety of products at lower and lower costs. But it was not confined to cheapening the production of *existing* types of goods. New varieties were constantly being offered. Never was the exploitation of inventions offering new luxuries, new facilities and new amusements more active than in 1929. And this progress did not come to an abrupt end. We can quite confidently say that, had the national income of the United States remained at $85,000,000,000, the demand for consumable goods would have continued unabated. It would have been diverted from some industries to others. Some products would have met with satiety of demand, and others would have become obsolete; but some would have passed, as so many have done, from being the luxuries of thousands to entering into the household budgets of millions, and the appearance of completely new products would have continued.

What interrupted this demand for consumable goods was the same thing that cut off the inflow of new savings into the investment market. It was the compression of the national income and the consequent contraction of the flow of money.

CHAPTER VII.

A Technological Revolution.

In referring above to the possibility of a glut of consumable goods, we were content to say that in any case such a glut did not exist or threaten in the United States at the end of 1929. But there is a school of thought which holds that technological changes have so transformed the economic system that some radical change has become necessary, and that the present unparalleled depression is to be interpreted as a symptom of a real and fundamental breakdown.

It is only in recent years that the full potentialities of mass production have been grasped. Is it not possible that technological progress has reached such a stage that, with some reorganisation and the installation of appropriate new plant, the necessary supply of factory products and primary products could be produced at a mere fraction, say, one-tenth, of the former cost in terms of labour? I include primary products, for recent improvements apply to agriculture as well as to industry. They are not only mechanical but also chemical and biological, and their characteristic is quite as much to diminish the labour costs of a given output as to increase the yield of a given area.

Suppose now that the application of these improvements comes with a sudden rush. It may be said that it cannot be so very sudden, for there must be a preliminary interval for the requisite new plant to be constructed. But an industrial revolution on the scale suggested would count as sudden if it were accomplished in ten years.

The entire fixed capital disclosed in the balance sheets of manufacturing companies in the United States, so far as furnished in connexion with the income tax returns in 1930,

was no more than \$29,000,000,000. If we allow for a few companies omitted and for concerns not in company form, we may still say that the total amount would not greatly exceed \$30,000,000,000, and would not be more than could be entirely renewed in ten years. If we assume that technological progress is applied rather to increasing productivity with a given quantity of capital than to displacing labour by additional capital, then the renewal by itself might effect the transition to an entirely new system of production. The improvements might be expected to be applied as much in the instrumental industries by which new plant is to be produced as in the consumption industries, so that the new plant would itself be produced at a diminishing cost.

If all the material products known to man were enormously reduced in cost by such a revolution, consumption could not immediately expand in proportion. In fact, the problems of a glut would arise.

A Glut of Capital.

In considering the contingency of a glut, we need not confine ourselves to the extreme hypothesis of markets being swamped in the near future by a sudden and overwhelming extension of mass production. We may make a more general assumption that, for whatever cause, the demand for consumable goods reaches a limit, and that any further improvements in production will fail to market a greater quantity.

That in itself need not involve any slackening of economic activity. As improvements reduce the real cost of consumable goods, and people spend a smaller proportion of their incomes upon them, the surplus income not required for consumable goods will be saved. But that does not mean that the money saved will be held idle. In general, money saved is *spent*; it is invested, and is passed on through the investment market to be spent on capital goods.

We have shown (pp. 6-7 above) how the market functions as a channel for this purpose. With a given total of incomes, a decrease of expenditure on consumable goods means increased savings, but, so long as the investment market

places the additional savings in additional capital outlay, there is no failure of equilibrium.

We are assuming the limit of the demand for consumable goods to have been already reached, and, it may be asked, does that not imply that the demand for capital goods has likewise reached a limit ?

Clearly it would be sheer waste to extend capacity and increase output. But capital outlay may be applied to reduce costs without increasing output. And even if an improvement does increase output, it may yet be to the interest of those producers who first install it, though waste and loss may be inflicted on competitors who have not acted in time.

Capital outlay will continue so long as there is not a *glut of capital*, and the sign of a glut of capital is the fall of the rate of interest to zero. It is sometimes assumed too readily that this cannot in practice occur, because there could be no lack of plans for capital expenditure on any desired scale, however large, if the yield of interest were no longer a condition. That is a mistake, for even if there were no interest the capital goods constructed would involve recurrent costs for maintenance and depreciation, and it would not be worth while to produce them unless their usefulness were sufficient to justify these costs. It might quite well happen that all openings for the installation of any kind of capital equipment which would yield more than its bare cost of maintenance and depreciation had been filled, and that there was such a superabundance of housing accommodation that rents would likewise leave no margin over maintenance and depreciation. It would then have ceased to be possible to make an income by lending capital.

That does not mean that people could no longer make *profit*. Profit would remain as the reward of enterprise and risk, and the use of capital would continue to be a condition of obtaining profit. There would continue to be dividends on ordinary shares, and there would even be interest on loans involving risk. But what may be called the gilt-edged rate of interest would be zero, and these other payments would be no more than the appropriate excess in each case of the rate over the gilt-edged rate.

A glut of capital would destroy the motive to invest savings. It would no longer be possible to obtain a perfectly secured annuity in exchange for a capital sum. Savings would be accumulated in the form of idle money. We could no longer say that money saved is spent, and it follows that savings would cause a deficiency of purchasing power. The demand for goods would fall short of the total of incomes, and therefore of the value of goods produced, and a portion of the goods produced would remain unsold.

A glut of consumable goods would tend to produce a glut of capital goods, but the glut of capital goods could occur without any glut of consumable goods, and it is the glut of capital goods that causes a failure of equilibrium.

When we say that savings will be accumulated in the form of idle money, what does this mean ? We can hardly suppose that they will be in the form of hoards of gold and silver. They may be placed on deposit in banks. But what assets will the banks hold ? Banks may still be in a position to charge something for advances. The banker's knowledge of his customers reduces the risk to *him*, while any other lender would demand relatively onerous terms. But the demand for advances is likely to be very limited and the rate low. There will be no interest-yielding investments obtainable in the market, and the greater part of the banks' assets will be idle cash. They will have to make charges to their depositors for managing their accounts.

What form then is the banks' cash to take ? Here, again, we can hardly suppose it to be a purely metallic reserve. The deposits, instead of being limited to people's working balances of means of payment, are to be swollen by an indefinite accumulation of savings. Were they to be covered by gold and silver, the demand for the precious metals would be inordinately increased, and their value forced up beyond all bounds. The banks must hold currency, paper money issued by the Government or a central bank, or else an equivalent in the form of credit.

In fact, the most probable arrangement would be the deposit of savings not in commercial banks at all but with the Government, to form a non-interest bearing national debt payable on demand.

But that is still no solution of the problem of saving. For what assets will the Government hold against these deposits ? To the extent that it has to incur capital outlay, they will be a convenience, but, that once provided for, what is it to do ? It may use the savings entrusted to it to meet current expenses in place of taxation. But it will be incurring a constantly increasing floating debt with nothing to show for it. The debt will be a floating debt, because, so long as there is no interest, no inducement can be offered to the creditor to refrain from asking for payment. The deposits will be withdrawable in currency at any time, and will count as money in the eyes of the depositors. They will be held, not as a source of income, but with a view to being spent on the occasion arising. If for any reason the holders begin to use this purchasing power on any considerable scale, there appears an additional demand for goods. But there is no additional supply to satisfy this sudden accession of demand. A rise of prices must set in, and there may result a loss of confidence in the currency, which will disperse all the savings in an inflationary vapour in a few weeks.

Thus a system in which savings cannot be turned into a source of income and must be held in the form of liquid purchasing power is dangerously unstable. The danger might be diminished by making a charge, a kind of negative interest, on all demand or short-term deposits, and, no doubt, there would be a considerable business in life annuities (containing, of course, no interest). But there would remain the fundamental antinomy that individuals would be accumulating *savings*, while there would be no corresponding accumulation of *wealth*.

And even the use of the savings to meet Government expenditure in place of taxation might not suffice to use them up. The reduction of taxation would itself tend to increase the savings. When the Government has met all its current expenses as well as its capital outlay out of the deposits it receives, what is it to do with any surplus ? If it does nothing, and locks up the surplus, it will be withdrawing that amount of currency from circulation. The result will be deflation and unemployment.

BREAKDOWN OF THE MONETARY REMEDY.

Deflation arising in this way from a glut of capital would present a problem which cannot be completely solved by the regulation of credit or by any purely monetary device. The relaxation of credit is designed to remedy unemployment by so enlarging the aggregate of incomes that the resulting demand for goods will evoke the required degree of economic activity. But if a part of the incomes remains unspent, a part of the goods produced remains unsold, and the remedy fails. The absence of interest will not of itself induce people to produce indefinitely for stock or to hold greater stocks of goods than they need, for the holding of stocks involves expense and the danger of deterioration.

How is such a situation to be dealt with ? The Government, having come to the end of its expenditure, might put currency into circulation by way of free gifts or gratuitous allowances (like Major Douglas's national dividends). If we suppose the glut of capital goods not to have been associated with a glut of consumable goods, there might result a sufficient increase in the demand for consumable goods to keep the community fully employed. But the additional resources issued to the people would in part be saved, and the increase in consumption would be accompanied by some increase in saving. In the particular case where a glut of capital goods is supposed to occur as the result of a glut of consumable goods, this method would break down altogether. The demand for consumable goods, having reached its limit, could not be increased at all by any amount of gratuitous allowances, and the whole amount of the Government's largesse would be accumulated in idle savings represented by an ever-growing floating debt.

In fact, satiety of demand puts a limit to the wealth-producing power of the community, and anything produced in excess of that limit is a waste of effort. It is either consumable goods which no one wants to consume, or capital goods which will not pay for maintenance and depreciation. It is a mistake to try to maintain a total of incomes in terms of money equivalent to an output exceeding the limit. The

right treatment is so far to restrict productive activity as to limit output to what can be absorbed. Hours of labour can be reduced, and likewise *years* of labour, the age of retirement from work being hastened and the age of entry retarded. Under conditions of satiety this will involve no sacrifice of real wages except in the curtailment of savings.

And it is not necessary to prevent *any* accumulation of savings in excess of the supply of capital goods. The Government might reasonably assume a fairly substantial non-interest-bearing debt, provided the probable demand for goods arising at any one time through people drawing on their savings was not such as to endanger monetary equilibrium.

The limitation of hours and years of labour would have to be such as to restrict the income of the individual to what he could spend on consumable goods *plus* a limited margin of saving. Since saving would be limited, and the Government would not finance itself exclusively through an ever-growing floating debt, taxation would have to continue. And taxation might be employed as an instrument for restricting saving. Heavy direct taxation, combined possibly with a limitation of inheritance, might keep the growth of savings within moderate limits, or even prevent it altogether.

We are accustomed to think of saving as worthy of encouragement. Not only does it help to secure the individual against economic misfortune, but the accumulation of capital resources enriches the community and raises the standard of living. If the accumulation of capital resources in any useful sense becomes impossible, the individual who saves becomes a mere *creditor* of the community, without doing anything to furnish the community with assets to enable it to discharge its debt. The community cannot afford to assume such obligations without limit.

Is there Prospect of a Glut?

The outward sign of a glut of capital would be a fall of the long-term rate of interest to zero. At a time of depression the short-term rate may fall very near zero. That is

because the shrinkage of demand makes it difficult to gain a profit on any short-period operation, and the banks find great difficulty in attracting borrowers.

Under these conditions the long-term rate of interest also becomes low, but not nearly so low as the short-term rate. At the present time in London or New York short-term rates in the discount market are a mere fraction of 1 per cent. The long-term rate in the London investment market for British Government securities is about 3½ per cent. It has been much lower in the past. It was about 2¼ per cent. in 1897. From 1844, when the remaining 3½ per cent. debt was converted to 3 per cent., till 1914 it was rare for the yield of consols at market price to be as high as 3½ per cent. Even in the eighteenth century the yield fell as low as 3 per cent., Pelham's conversion of a part of the debt to that rate having taken place in 1750.

Thus we seem to be further off a glut of capital than at certain times in the past. Indeed, technological progress in itself would usually tend to postpone the glut of capital which the accumulation of savings would otherwise tend to bring about, for on the whole technological progress has increased production by reinforcing human labour with a growing quantity and variety of appliances, representing a growing capital outlay.

Nevertheless, even if this has been true in the past, it does not in itself dispose of the possibility that progress may, in the near future, take the form of greatly increasing the output, not merely of a given force of labour, but of a given fund of capital. If output outstrips needs to the extent that the working population would prefer to work shorter hours and have wages reduced in proportion, because the additional income is not in their opinion worth the additional effort, then the right measure is clearly the appropriate shortening of hours.

If people want to obtain surplus income in order to accumulate savings, no difficulty is involved in so organising economic activity as to produce this surplus income so long as capital outlay continues to yield interest and offers a sufficient inducement to invest.

When glut occurs, and changes of economic organisation become necessary, there will be visible symptoms pointing to the requisite action, *provided* that the economic system is functioning normally at the time. But it would be a grave blunder to mistake the symptoms of depression for the symptoms of glut. Before we can tell whether the symptoms of glut are appearing, we must first escape from the depression.

And in reality it does not seem likely that a state of universal glut is at all near. Sir Arthur Salter seeks to dispose of the question by saying that " human desires are indefinitely expansible, and will continue so to be until the last Hottentot lives like a millionaire."[1] It is not quite so simple as that. In what style will the last Hottentot's valet live ? If the many are not to be waited on by servants they may reach satiety more easily than at first appears probable. Many of the contrivances of modern life would be a mere burden to those who could not employ assistance in using them.

Nevertheless, Sir Arthur Salter's argument is right in principle. Modern methods of production may tend to cause a real glut of factory products, of staple foods and materials and in general of everything in which there is scope for highly capitalised production. But that is far from exhausting the entire economic field. Social progress constantly offers new openings for more skilled and more individual economic activity. More effort can be applied to education and learning, to art and entertainment and the amenities of life, and particularly to *applied* art, conferring beauty of form on objects produced for use. And as products become more plentiful and more varied, the services of distribution become more skilled and more onerous. Modern methods of mass production may result in the displacement of a large amount of redundant labour. But this does not happen *suddenly*. It has been happening visibly in the United States ever since the war. The numbers employed in factories have been shrinking, not merely in proportion to population, but absolutely. The index of

[1] *Recovery*, p. 28.

factory employment, which reached a maximum of 108 in 1920, was no more than 101 in the active year 1929. Employment in agriculture has likewise been shrinking. Simultaneously the numbers employed in distribution and in rendering all the multifarious services that fulfil the purposes of modern civilisation have been growing.

The tendency of the population to move out of factory work into distribution and into miscellaneous occupations is visible also in Great Britain. But it is less measurable, because the country has seen no period of normal manufacturing prosperity since 1920.

It would be a mistake to regard the change as a matter of regret. The new occupations of the population are probably on the whole preferable to the old. The excessive absorption of the population in factory labour which started with the industrial revolution is now generally recognised to have been a great evil. As the increased efficiency of factory production impinges upon satiety of demand, the result will be that factory production must become a smaller and smaller proportion of the aggregate economic activity of the world. To people who think of employment as primarily factory employment that sounds like a prospect of chronic unemployment. But, provided the change is gradual enough to permit of the growth of alternative forms of economic activity, there need be no such prospect.

It may indeed be found at some time in the future that the machine will have so completely taken the place of unskilled labour that the openings for employment demand more skill and ability than a part of the population can supply. There would be a "proletariat" in the literal sense, a class of people who can render no service to society except the procreation of children. That life should thus outstrip the powers of a part of humanity and leave them a demoralised residue of unemployables would be a real calamity. But experience does not afford any justification for such fears. We find that average humanity supplies aptitudes for an infinite variety of accomplishments, and that the unemployables are more often the victims of social misfits than of congenital incapacity.

It would be out of place to pursue these speculations further. It is enough to say that a sound monetary policy can do no more than clear the ground for economic activity and progress, and in so doing it is likely at all times to reveal the need for dealing with a variety of economic problems. But *in the absence* of a sound monetary policy, monetary instability will confuse the issues, and leave us utterly uncertain as to the character and extent of the problems to be solved.

The progress of mass production may require a general shortening of hours of labour. But at the present time we do not know whether that is so or not. We do not know what the future demand for any product is to be.

To arrive at a measure of normal demand in any industry we must consider what the situation would be if all industries were fully employed and the profits in all were normal. That does not mean that every industry is to be employed up to capacity. There is so much surplus capacity in most manufacturing industries that the available supply of labour would not suffice to man them all at the same time. But our hypothesis requires every workman to be employed on full wages (subject to the irreducible minimum of unemployment) and the employers on the whole to be making normal profits, even if some concerns are under-employed or altogether idle, and making an inadequate profit or incurring a loss.

That is to assume that the existing shortage of demand is completely remedied. If, on that assumption, there is a shortage of demand for factory products, then the assumption breaks down ; in addition to the restoration of normal demand in terms of money, there must *also* be some provision for dealing with displaced labour. But the condition of discovering whether this is so or not is the *prior* restoration of normal demand.

So long as the shortage of demand continues, the transfer of productive resources from those industries which encounter a deficiency of demand to those which have to meet an excess of demand is in abeyance ; in place of the excess of demand there is only a less severe deficiency. It is only when this

anomalous position has been corrected that the true conditions can be estimated. That requires the restoration of monetary equilibrium.

Four years after the prosperity of 1929 came to an end, we cannot be *certain* that there are not underlying causes of economic disequilibrium. It *may* be that technological improvements were already threatening a big dislocation of industry and agriculture in 1929.

If that was so, what light does it throw on the origin of the depression? It may be that the world would have had to cope in any case with the formidable problem of an unprecedented displacement of labour. But what more disastrous blunder could be perpetrated at such a time than to apply all the rigours of credit restriction to bring about a collapse of demand? That would be not merely to add to the distress and unemployment involved in the transfer and adaptation assumed to have been necessary, all the distress and unemployment arising from the vicious circle of deflation, but to delay indefinitely the process of adaptation itself. The dislocation would be both aggravated and prolonged.

If, as seems much more likely, no fundamental dislocation was threatening in 1929, but there was some inequality of development among industries, the same criticism applies. If the over-developed industries threatened to engender the deflation bacillus, the under-developed industries threatened to engender the inflation bacillus. It was the behaviour of the banking system that decided which of the two was to prevail.

At the outbreak of war in 1914 a huge transfer of productive activity from one set of industries to another became urgently necessary. A very great part of the equipment and labour of the peace-time industries became redundant, and the war-time industries had to be hastily expanded. On that occasion the inflation bacillus was so stimulated that all the benevolent schemes for assisting the unemployed expired of inanition; they found no one to employ.

Again, at the end of the war, millions of men were displaced not only by the demobilisation of armies, but by the break-up of war-time industrial organisations. Inflation

raged throughout the world for a year and a half. By the time the turning-point came, and inflation made way for deflation, industry was everywhere active and the working population fully employed.

In that case, there was no fundamental economic dislocation to be corrected. Given adequate demand, the productive powers of the world were there ready to function in much the same fashion as when they had been suddenly interrupted in 1914. All the destruction and displacement due to the war could be corrected by the normal operation of demand, stimulating supply where it was short, and checking supply where it was redundant.

After allowance has been made for the disparities which are in any case the natural result of depression, it is not at all clear that the over-development of particular industries has been in any degree more prevalent or more serious in recent years than it has normally been. And even if it is, the natural process by which inequality of development remedies itself cannot *begin* to operate till the normal relation between prices and wages has been restored and those industries which have been insufficiently developed are enabled to feel the excess demand for their products. The restoration of monetary equilibrium is the essential first step.

CHAPTER VIII.

Economic Adversity and Monetary Policy.

So long as we assume demand undiminished in terms of money, no economic disturbance can cause a general depression. In an extreme case we may suppose a great staple industry to be thrown out of action. Prosperity cannot be brought at once to those dependent on that industry merely by assuring excess profits to the rest. That is especially so when the economic disaster is recognised as a temporary one, like the cotton famine in England during the American Civil War, or the great labour disputes of 1912, 1921 and 1926 in the coal-mining industry. In such a case the productive resources affected will stand idle till the trouble is over. Demand will be diminished by the amount of the incomes suspended. But that need not cause any depression in other industries. For the shrinkage in demand is associated with an equal shrinkage of supply of products of the idle industry, and the residue of demand remaining for other products remains unchanged.

In the case where it is an export industry that is in trouble, the contraction of demand will exceed the contraction of output. The country will then suffer the consequences of an adverse balance of payments. It is, in fact, impoverished by a real diminution in its resources, which no monetary measures can cure. But even so the effort to maintain its currency unit at par will add to this impoverishment the further distresses of deflation. That aggravation can be avoided if the currency unit is allowed to depreciate.

Whichever course be taken by the distressed country, its troubles need not spread to other countries, and there need be no general depression. We have already shown that,

when a glut of a primary product involves the exporting countries in an unfavourable balance, the importing countries will experience a *favourable* balance. And precisely parallel reasoning applies here. When an economic calamity cuts short the supply of a product,[1] the result in countries which ordinarily import the product will be to set free demand for other products, and so to make good the loss of activity that would otherwise arise from a decline in their exports to the producing country.

The economic calamity remains none the less a calamity. The world is worse off in that it has lost its usual supply of the product, and monetary measures cannot make that loss good. But a wisely directed monetary policy can prevent any *further* shrinkage of demand beyond that arising from a part of the productive resources of the world being temporarily idle. That is to say, it can ensure that other industries than those affected by the calamity continue remunerative and fully employed.

Where there is a *permanent* economic dislocation, so that the productive resources displaced have to seek openings elsewhere, the aim ought to be to maintain some *excess* demand with a view to stimulating enterprise and hastening the process of transfer. But that is a refinement that we need not follow up.

Thus we see that there are conditions in which some economic dislocation involves a shrinkage in incomes and in demand which cannot be satisfactorily rectified by monetary means. But even then monetary policy has the task of preventing adversity in one industry or group of industries from spreading depression to the rest; its function is to prevent the vicious circle of deflation being joined, and to confine the contraction of demand within limits proportional to the inevitable contraction of activity.

During the present depression some countries have undoubtedly suffered from extraneous causes which have

[1] We are assuming such a shortage of supply that even a very high price for any remnant of supply that continues is far short of making good the loss of income to the producers of the commodity as a whole.

impaired their economic power and aggravated their distress. The economic system of Chile is bound up with the production and export of nitrates. That is an infra-primary industry, in that it supplies materials to the so-called primary industries themselves. When agriculture is depressed the demand for fertilisers is doubly depressed. Chile was therefore in any case faced with the prospect of a disproportionate share in the world depression. But since the war the nitrate industry has been exposed to competition from the new processes for producing synthetic nitrates from the air.

The depreciation of the Chilean currency since the suspension of the gold standard in March, 1932, has brought the manufacturing industry of the country greater productive activity even than before the depression began. But manufacturing is no more than a very subordinate part of the Chilean economic system, and its activity goes but a little way to relieve the economic prostration of the country. A monetary expansion, even if it raises the money income of the country to what it was in the days of prosperity, cannot make good the real loss due to the competition of the new processes. A general recovery in the rest of the world would greatly increase the demand for nitrates, and might make the Chilean nitrate industry profitable once again, but this fundamental disadvantage would still remain.

In the earlier stages of the depression the difficulties of the coal and cotton industries were put forward as explanations of trade depression in Great Britain. In the period up to 1929, when depression was practically confined to this country, the special difficulties of our exporting industries, taken by themselves, must have been a contributory factor. But there is no evidence that the weaknesses of some exporting industries were not compensated by progress in others, and by increased invisible exports. The heavy fall in the price level (see above, p. 26), coming at a time when recovery from the severe depression of 1921-22 was still incomplete, was by itself quite enough to account for the depression that prevailed up to 1929.

NON-MONETARY THEORIES OF THE DEPRESSION.

The world depression has nothing to do with a deficiency of resources. The bitter paradox of poverty in the midst of plenty has become a terrible commonplace. Practically all the so-called economic or non-monetary explanations attribute the depression to *excess* supplies. According to them the community is, as it were, overwhelmed by the abundance of its own material wealth.

The real answer to all the non-monetary explanations of the depression is that they are merely particular cases of the monetary explanation. If they do not explain the shrinkage of demand, they do not explain the depression. And the shrinkage of demand is simply a shrinkage of the flow of *money*.

The shrinkage of demand takes effect in a fall of prices. But an explanation which attributes the fall of prices to something other than the shrinkage of demand does not account for the depression at all. To the argument that the collapse of the price level is not due to monetary causes, but is merely the natural consequence of the increased productivity made possible by technological progress, the answer is simple. In so far as the fall of prices is due to improved methods of production, *no* reduction of wages is required for the maintenance of equilibrium.

If the physical output of a community is increased by, say, one-fourth through improved productivity, and incomes (and therefore demand) in terms of money remain unchanged, prices will fall by one-fifth. But the fall of prices does not disturb equilibrium. Wages can remain unchanged and there will be no unemployment, except such as is incidental to the shift of demand from one industry to another.

We may even say that the true condition of monetary equilibrium is stability of the national income. That does not mean that the number of monetary units in the national income is to remain absolutely fixed, but that its growth should be so regulated as to keep pace with the growth of population and of capital. It should keep pace with the factors of production, but not with their actual output. If

a given force of labour and capital is enabled by inventions and improved methods to produce more, that should be reflected in the lower price of the product, not in higher remuneration in terms of money for the labour and capital. A fall of price so occasioned causes no disturbance of equilibrium at all.[1]

When some years ago I described the trade cycle as a purely monetary phenomenon, this was regarded in some quarters as an extreme and one-sided view. But the fact is that in the modern world *demand* is a purely monetary phenomenon. Demand means the number of monetary units offered out of income for goods.[2] This proposition is in no way invalidated by the fact that demand so operating is no more than a step in the exchange of goods and services for one another. For it is an essential step. It is demand in this sense that governs economic *activity*.

The people engaged in production are continually becoming *creditors*. Employees become creditors of their employers by selling their labour in the labour market. The employers themselves become creditors by selling their products in the appropriate markets. It is in virtue of this creditor position that the desire of all concerned to acquire goods becomes effective demand. In order that the system may work, the creditors must be *paid;* it is essential that the banks supply the means of payment. They must place bank credit and currency at the disposal of those who take command of the economic army, that is to say, the traders (including producers and dealers), who assume the responsibility for the production, movement and sale of goods.

Those who are sceptical of the monetary explanation of the depression do not allow for the potency of the inherent instability of credit. To open the way to a depression of the most calamitous severity, all that is required is that the central banks of the world between them impose a sufficient restriction on the credit system to compress demand and to

[1] See *The Art of Central Banking*, pp. 324-5.

[2] We are not here concerned with the demand function for a particular product, which relates the quantity demanded with the price.

start the vicious circle of deflation. Thereafter, if nothing is done to break the vicious circle, depression may go on gathering momentum *indefinitely*. To the single fact of shrinking demand every branch of economic activity is then helplessly subjected. The vicious circle of deflation is by itself perfectly adequate to account for the decline of the American national income from $85,000,000,000 to $40,000,000,000 in three years.

To that collapse of purchasing power the other countries of the world have had to adjust themselves. Any country where the national income did not decline in due proportion would suffer from an adverse balance and an unfavourable exchange. Its exports would fall off in proportion to the purchasing power of foreign countries, while its imports would be, at any rate relatively, maintained. It would lose gold, and would have to have recourse to one of the alternatives described above (pp. 48-51), a contraction of credit, a restriction of imports, or a suspension of the gold standard.

Comparison with Cyclical Depressions.

In this contraction of purchasing power there is nothing new except its magnitude. For centuries past the cyclical fluctuations of trade have brought recurrent depressions, of which the outstanding characteristics have been a decline of productive activity and a fall of prices. The aggregate of incomes, and therefore of demand, would shrink in a proportion compounded of both.

In former trade cycles the depression resulted in a diminished circulation of currency, and in an accumulation of idle money in the banks. Gold reserves became redundant and afforded an inducement for a renewed expansion of credit through which demand was enlarged again, and business revived. But during the present depression this recuperative process has not been allowed to operate. Vast masses of gold were released, but they were absorbed by France and the United States, and later also by Belgium, Holland and Switzerland.

Tradition, based on the experience of many generations, teaches that trade activity can never last, but that it must always give place to depression, at any rate after a few years. If that were true, then it would follow that the activity of 1929 was bound to be followed by a reaction.

But the tradition is wrong. The experience on which it is founded, prolonged though it was, was limited to the working of a defective system of credit regulation. Credit expansion was invariably permitted to go too far, because it was no one's business to check it till an actual shortage of gold reserves began to be felt. That shortage, depending on the gradual accretion of cash balances and consequent demand for currency under the influence of trade activity, was a very tardy development and allowed time for the expansion of credit and the rise of prices to pass beyond the limits up to which they could be permanently maintained. To bring back the volume of credit and the price level into due proportion with the available stock of gold, it was necessary to resort to credit restriction. Demand shrank and depression ensued.

In 1929 the expansion of business had not outstripped the supply of gold. At the beginning of the year there was no country that was short of gold. The United States had just lost $500,000,000 of gold, but the $4,142,000,000 that remained provided an ample margin. Other countries were all well stocked.

The shortage of gold that followed was not due to the demands of inflated credit for a growing circulation. In the United States, for example, the currency in circulation was practically stationary in the years 1924-29, with a slight tendency from 1927 onwards to *decrease*. The shortage of gold arose from the absorption by France. The French absorption of gold was due to the special circumstances, already described, associated with the return of France to the gold standard. The monetary circulation of the country increased, not on account of any abnormal activity of business, but because the inflation of 1926 and the revaluation of the franc had left it inadequate. The demand for gold that had been staved off by purchases of foreign

exchange up to the end of 1928 was precipitated by the sales of foreign exchange, already referred to, which occurred in the opening months of 1929. Apart from such a fortuitous and exceptional demand for gold, there was no reason why the economic activity of 1929 should not have continued.

The adequacy of the supply of gold depended on the law and practice relating the volume of currency and of bank credit to the gold reserves in the several countries. In the period of the return to the gold standard, between 1924 and 1928, there had been a very general recourse to the device of economising gold by supplementing metallic reserves with reserves of foreign exchange. *If* that be regarded as a temporary expedient, then, no doubt, the prospect of its abandonment would threaten a scarcity of gold and a collapse of the price level, unless some other method of economising gold reserves were adopted. But there was no reason why the practice of holding reserves of foreign exchange, as it prevailed in 1928, should not have continued. After the French liquidation of foreign exchange in 1929 the practice remained in full operation elsewhere up to the crisis of 1931. It was only when the British suspension of the gold standard in September, 1931, had inflicted loss on holders of sterling reserves, that a number of countries decided to forsake the practice and to guard against further loss by liquidating their dollar assets and replacing them with gold.

It is often taken for granted that the stock exchange speculation in the United States must inevitably have been accompanied by inflation. But the statistical evidence does not support that view. Not only was the commodity price level falling,[1] but the national income of the United States only increased from $79,200,000,000 in 1925 to $85,200,000,000 in 1929. At a time of growing population and growing wealth, an increase of less than 2 per cent. per annum is certainly not excessive. Apart from any extraneous obstacle,

[1] Professor Robbins says that the price level fell only 0·6 per cent. between 1924 and 1929 (*Lloyds Bank Monthly Review*, October, 1932, p. 430). But 1924 was a year of depression. The fall from 1923 to 1929 was 5·2 per cent., and from 1925 to 1929 7·8 per cent.

such as a shortage of gold, it might have continued indefinitely.

On the other hand, the stock exchange speculation was not unconnected with the inflation that had occurred *in the past.* The national income in 1914 is estimated to have been $33,200,000,000. In 1925 it had risen to $79,200,000,000 or in the proportion of 238 to 100. The wholesale price index, it is true, was no more than 148, but that is to be interpreted as evidence of an enormous growth of productivity, which, but for inflation, ought to have caused a big *fall* in the price level. The index of wages (hourly, 100 in 1914) was 232.

In fact, a fall in the value of money by more than half had been largely masked by a reduction in the real cost of commodities.

When the great outburst of inflation in 1919 and 1920 suddenly collapsed and was succeeded by the acute depression of 1921 and 1922, the immense underlying change in the value of money had not had time to make itself felt in the valuation of shares. The fleeting profits of 1919 and 1920 had made way for heavy losses. Recovery came in 1923 and after a brief recession was resumed in 1925, but people did not at first appreciate how great a revaluation of shares was called for. Only as the swollen profits appropriate to a national income which approached and soon passed $80,000,000,000 came to be declared was the change understood. Then at last shares mounted higher and higher. The orgy of cupidity was inflamed by the fury of gambling.

What was to be done ? The way to reduce the prices of shares was to reduce the profits. The collapse of the national income achieved the purpose. Credit restriction stopped speculation by stopping prosperity.

It may be freely admitted that up to the late summer of 1929 credit restriction was really needed not to reduce the national income, but to prevent it from assuming a rate of increase beyond what was desirable. There was a danger of inflationary influences spreading from the stock market to industry.

But, that having been successfully prevented, the critical

circumstances that followed the collapse of the Wall Street speculation in October and November, 1929, urgently called for the most rapid possible reversal of the policy of credit restriction. It was the tardy and half-hearted treatment of this situation, not only in America but in England, that was responsible for the depression getting beyond control.

M. Charles Rist takes the view that the rise in the price level that occurred in the United States in the period up to 1925 was a passing vagary. When other countries were returning from paper to gold, " the gold price level to which the price levels of the countries on paper were thenceforward to be linked had been raised to excess by an accidental and transitory combination of circumstances to which the economic system of the United States had been subject for ten years." [1]

In order that that price level could become permanent, one or both of two conditions, he says, would have had to be fulfilled : either that production should not increase too fast, or that the total of incomes in the countries which stabilised their currencies on gold should increase fast enough. The former condition was not fulfilled. And as to the latter there was no considerable increase in the output of gold, and " the gold that was available, whether from new production or from existing reserves, was used up, in part at any rate, in strengthening the reserves of those countries which had a favourable balance of payments rather than in expanding their monetary circulation or enlarging their incomes." [2]

Thus the obstacle to the permanent continuance of the price level of 1925 was not any inherent maladjustment ; it was simply an insufficiency of gold. Had the supply of gold been sufficient to keep pace with economic activity, there need not have been any deflation. A price level that has been reached by inflation in any country can be retained permanently, provided this obstacle of a scarcity of gold is circumvented. In France in 1927-28 it was circumvented by devaluing the franc, and a price level 6½ times that of 1913 was established.

[1] *Essais sur quelques Problèmes Economiques et Monétaires*, p. 156.
[2] *Loc. cit.*, p. 157.

But, as we have seen, there was no scarcity of gold in 1928. The price level of 1928 only became untenable in consequence of an unforeseen demand for gold. As M. Rist says, "in France, for example, the foreign exchange acquired since 1926, of which a part was later on transformed into gold, constituted the backing for notes which, at any rate till 1928, were almost entirely absorbed in repaying the debt of the State to the Bank of France." He adds that some other countries similarly used gold or foreign exchange convertible into gold, which they had acquired to reinforce their reserves.

But the accumulation of reserves of *foreign exchange* did not cause a scarcity of gold. In the crucial period from December, 1928, to the end of May, 1931, the month in which the Credit Anstalt failure occurred, the only increases in gold holdings were the following:

France . . .	£187,000,000
United States . .	£135,000,000
Belgium . . .	£15,600,000
Other countries . .	£19,000,000

The absorption of gold outside France and the United States was negligible, and it is significant that in the year 1929 France acquired £79,000,000 of gold, while the United States acquired only £30,000,000.[1] The French absorption of gold was swollen by the need for replacing the £55,000,000 of foreign exchange disposed of in the early part of the year.

M. Rist is content to regard the French absorption of gold as inevitable. But what made it inevitable was the limitation of the powers of investment of the Bank of France. Had the bank been as free as the Bank of England or the Federal Reserve Banks to buy Government securities, it could have kept down its gold holding to so much as would provide a reasonable margin over its statutory reserve of 35 per cent. In May, 1931, its liabilities were 100 milliards, and it held 55½ milliards of gold. A reserve of 45 milliards, providing a margin of 10 milliards, would have been ample,

[1] Up to the end of October the U.S. had gained £50,000,000, but £20,000,000 was withdrawn in November and December.

International Lending.

We still have to consider another explanation that is frequently put forward for the depression. It is said that the economic activity of the period up to 1929 depended on a system of international lending that could not have continued indefinitely.

In the six years 1924-29 the favourable balance of payments of the United States on current account averaged $524,000,000. With an average net outflow of gold of $20,000,000 a year, that makes $544,000,000 applied to external investment. British external investment was reduced by special circumstances in the years 1924-26, but from 1927 to 1928 it averaged £120,000,000. Few other countries were exporters of capital, and the aggregate of their external investment was small.

The total international movement of capital in these years was almost certainly less than in the years immediately preceding the war, and, if allowance be made for the diminished purchasing power of money, much less. That does not necessarily prove that the movement of capital could have been kept up on that scale indefinitely. For it may be argued that in the years 1910-13 it was already excessive. But there are good grounds for holding that a substantial international movement of capital is a normal and permanent feature of the economic system of the world as at present constituted. As has already been pointed out above (pp. 41-2), the greater part of the savings of the world comes from the great commercial and financial centres, while the greater part of the capital outlay is incurred in countries in course of development. In fact, the local distribution of capital outlay could not correspond with the local distribution of savings unless rich people carried on their business in the places in which capital outlay was being incurred. The flow of capital from financial centres to regions of development occurs within the limits of one country, and the international flow is only a particular case of it. The international flow on the scale on which it was proceeding either in 1913 or in 1929 was not large in proportion to the total capital outlay of the world.

Cynics are found to sneer at the illusions of the investors who place their money abroad, when, it is said, dividends can only be paid so long as they are balanced in the foreign exchange market by an ever-growing flow of new loans. Upon this subject there is, I think, much misconception. A country in course of development will, of course, go on importing capital for a long period of years, and, so long as it does so, the import of capital and the payment of dividends and interest on capital previously imported will appear on opposite sides of the balance of payments. If the import of capital is at any moment suddenly cut off, the result will be a disturbance of the balance, which it may be difficult to rectify. Since 1929 all the capital-importing countries have suffered from just such a sudden cessation of the flow. But that has not been due to the completion or abandonment of the process of development itself. It has been due to the financial cataclysm in the investing countries, which has annihilated profits and stopped the supply of savings at the source.

The capital-importing countries have found themselves confronted with an adverse balance at a time when demand in world markets for products of all kinds was collapsing. Their exports dwindled away, and the difficulty of paying external interest became formidable.

But if we leave aside the contingency of a world deflation, such as we have been suffering from in the past four years, there is no reason why the cessation of the import of capital into a country as its development approaches completion should cause any embarrassment. The cessation is gradual, and (unless there is some failure of natural resources) it is likely to be attributable quite as much to a growth in the volume of savings within the country as to a slackening of capital outlay. This tendency was very marked in the United States in the twenty years preceding the outbreak of war. The country was still *intermittently* an importer of capital, and all the time its total capital outlay was growing greater. But at times when American business happened to be unusually prosperous the American purchases of securities from Europe would exceed the new European investments in

America. Since the war we have seen a noticeable growth of the local capital resources of India, Australia and Canada.

When the reversal of the stream of import of capital comes in those conditions, the burden of interest and dividends on existing foreign capital causes no difficulty.

But, it may be asked, what is to be the ultimate position of the capital-exporting country? Can it go on investing abroad *for ever?* Is it never to retire on its gains? "For ever" is a long time. But so long as savings are being applied to capital outlay at all, there will be a flow of capital from place to place. The limit of external investment will be found only when the limit of capital development itself is found.

Any particular capital-exporting country may find its position modified. The war changed Germany from an exporter of capital into an importer. Changes in the channels of trade may destroy the position of a financial centre. But, apart from such contingencies, the problem of the indefinite accumulation of external investments by a country is really part of the problem of the indefinite accumulation of capital. In fact, so long as external investment is possible in the world, a glut of capital cannot occur. The problems of a glut of capital can only arise on an international scale.

In any case there was no reason, apart from the deflation, why the export of capital should have come to an end in 1929. It is said that the investments made in the preceding years turned out badly, and so caused distrust. But there is no evidence that the proportion of failures was in any way abnormal *until* deflation intervened to increase the debtors' burden and to destroy the profits of enterprise.

As we have seen (above, p. 81), the American investment market remained favourable till past the middle of 1930, and indeed the new flotations of foreign securities were at a very high level in the first half of the year, and there was a substantial net export of capital for the whole year 1930. It was only when the rigours of deflation were already being suffered that the reaction came.

Tariffs and Creditor Countries.

International capital movements are sometimes adduced as the explanation of the crisis by another line of reasoning. A creditor country, it is argued, must ultimately receive payment either in goods or in gold. If it excludes the goods by high tariffs, it will absorb gold. France was a creditor country in virtue of the excess of her share of German reparations over her liabilities in respect of war debts ; the United States was a creditor in respect both of the war debts and of a growing income from external investments.

So far as it concerns the United States, the argument can be easily disposed of. In the period 1924-29 the country was not on balance absorbing gold at all. At the end of 1929 the monetary gold stock was $200,000,000 less than at the end of 1924. The absorption of gold that began in 1930 was at first successfully checked by the open market purchases of the Federal Reserve Banks, and it was only near the end of that year, when the depression was already in full force, that an absorption on a large scale set in.

As regards France, the net receipt on account of reparations must have facilitated the acquisition of gold. Nevertheless, it would be an error to treat it as the decisive factor. The French imports of gold were governed by a very definite need, the need to replenish the country with a normal stock of currency. To attribute them to a " favourable balance of payments " is as helpful as to diagnose sleeplessness as caused by insomnia.

So long as the shortage of currency in France continued, individuals found it necessary to apply their savings in part to the accumulation of cash balances. That meant that they must cut down their expenditure on goods and investments, and there resulted a restriction of imports and of external investment. The shortage of currency itself caused the " favourable balance " and the imports of gold. So long as the Bank of France was acquiring no other assets, the currency could not be expanded in any other way.

The tendency of the French tariff was upwards (though the big increases did not come till after the depression was

well under way in the latter part of 1930). But the tariff could not very materially modify the gold position. It could, indeed, only do so to the extent that, by raising the price level and increasing the national income in terms of monetary units, it led to a greater monetary circulation being required. That it was bound to have *some* influence in that direction is, of course, conceded. But it can only have accounted for a small fraction of the 26 milliards by which the note issue of the Bank of France increased between December, 1926, and May, 1931. Even had the tariff been low, a very large inflow of gold would have occurred, unless the Bank of France had been given power to acquire other assets (for example, to buy Government securities). And if the Bank had been given that power, the inflow of gold could have been prevented, be the tariff high or low.

The American tariff was raised in September, 1922. We have seen that there was only a very modest increase in the national income of the United States from 1925 to 1929. But the increase from $71,500,000,000 in 1923 to $79,200,000,000 in 1925 was large.[1] That is the normal and natural result of an increase in a protective tariff. Equally normal and natural was a simultaneous rise in wages. Concurrently the monetary circulation of the country rose from an average of $4,535,000,000 in 1922 to $4,867,000,000 in 1925.

But even if this increase of $300,000,000 or so in the monetary circulation is to be attributed to the tariff, we cannot infer that an equivalent portion of the gold imported (amounting to $1,600,000,000 from 1920 to 1924) was due to the tariff. For the United States was the only country remaining on the gold standard,[2] and being the only purchasers of gold as money, necessarily acquired *all* the gold on offer.

[1] The national income in 1921 and 1922 was much lower, but these were years of severe depression. The years 1923 and 1925, being both years of activity, are more comparable.

[2] A few countries re-established the gold standard in the course of these years, but they held their reserves in foreign exchange, and did not take gold.

When the general return to the gold standard came in 1925-28, the United States took active measures to release gold by a relaxation of credit, and held substantially less gold in 1929 than in 1924.

Undoubtedly, the further rise in the American tariff in 1930 had, so far as it went, an adverse effect on the world price level. The collapse of the purchasing power of the United States was in any case at that time the dominant factor in imposing general deflation on the world. The tariff tended further to restrict the purchasing power of the country in world markets. But, as we have seen, the Federal Reserve system successfully checked the inflow of gold by their purchases of securities in the open market. They provided, in fact, an *alternative asset* to be held against their note issues and deposits, and were to that extent enabled to dispense with gold. From June to November, 1930, the monetary gold in the United States remained practically unchanged at $4,500,000,000, or just the same as it had been six years before.

Moreover, we must take care not to exaggerate the effect of these tariff changes. Raising duties which are *already* prohibitive is innocuous. The field for the importation of competitive manufactures into the United States has long been extremely restricted, and it is doubtful whether the further restriction that occurred in 1930 was very considerable. It is noteworthy that no less than two-thirds of the American imports in 1929 were duty-free, and the " invisible imports," especially in the form of the expenditure of Americans travelling abroad, were very large.

When a country imposes or increases a protective tariff, the first effect is to reduce its imports, and so to make the balance of payments favourable. But equilibrium is restored by a rise in its internal price level and in money wages. Its increased purchasing power tends to attract imports, and its increased costs to check exports. If there is any obstruction delaying this process, gold will be imported, but, if steps are taken to induce an expansion of credit, little or no gold may be needed.

This adjustment covers the case of a creditor country.

A creditor country must in any case have an appropriately high internal price level to enable it to receive its credit balance in the form of goods. If it has a high protective tariff, the internal price level must be higher still.

In so far as the American tariff of 1930 really did exclude imports, it required an increase in the national income, such as had occurred in 1923-25, to re-establish equilibrium. Instead, the national income fell from $85,200,000,000 to $70,700,000,000 in 1930, with the further disastrous falls in the succeedings years.

The American tariff, like the French, may be regarded as aggravating the depression, but not as causing it. It was the gold position that was decisive, and, so far as France and the United States were concerned, the gold position depended on the powers and the action of the central banks in acquiring assets other than gold.

CHAPTER IX.

Bank Rate Policy in England.

As we have seen, the gold position could only exert influence through the credit position. And there the Bank of England was an essential link. The dear money of 1929 was only an intensification of the policy that had been practised for a number of years. The Bank of England had been keeping discount rates higher in London than in New York from 1924 to 1928. When bank rate was advanced to 5½ per cent. in February, 1929, it was placed once more above the New York rediscount rate, which had then been the higher for some months. The same is true of the rise to 6½ per cent. on the 26th September, 1929.

In the transition to cheap money that followed, the rates were for a time equal to one another, first at 3½ and then at 3 per cent., but London did not accompany New York in the further reduction to 2½ per cent. on the 20th June, 1930, and to 2 per cent. on the 24th December.

What, it may be asked, was the significance of this policy? The disorder with which the economic system of the world was infected was the unwillingness of traders to borrow and the consequent interruption of the normal process by which credit is created and demand is generated. But even when the disorder had reached its maximum intensity, we find a central bank administering pressure, gentle pressure perhaps, but still pressure, to lenders. Nor was the pressure so very gentle. For, at any rate in the early part of 1931, bank rate was made effective by the usual method of keeping down the Bank of England's holding of open market assets, the direct reverse of the policy of open market purchases tentatively pursued by the Federal Reserve system up to

the middle of 1930. That meant restricting the amount of deposits at the Bank of England, which include the reserves of the clearing banks, and thereby, if not giving them an inducement to cut down their advances, at any rate making them quite contented to keep their advances down to the existing amount.

How did it come about that such a policy could be regarded as appropriate at such a time? The explanation is to be found in a change in the attitude of financial opinion in the City towards bank rate policy. Bank rate policy, as it grew up in the nineteenth century, was recognised primarily as an instrument for regulating the amount of borrowing, and through it the price level. A high bank rate was resorted to when trade was "over-extended." As the Governor of the Bank, Horsley Palmer, explained to the Select Committee of 1832 (Qn. 678), the diminution of discounts "naturally tends to limit transactions and to the reduction of prices," and so causes a reduction of imports and an increase of exports.[1] That doctrine prevailed all through the nineteenth century, and was restated by the Cunliffe Committee in 1918. It is of interest as an important piece of economic theory that was established not by the theoretical economists but by the practical men of the City. No doubt the influence of Ricardo is to be traced in its origin, but it can hardly be said to have passed into academic economics till the days of Henry Sidgwick and Marshall.

Alongside this theory of the operation of bank rate, though appearing a few years later, is another theory, which traces its effect to the attraction of foreign balances seeking temporary investment. This view was put forward by Thomas Tooke before the Select Committee of 1840 (Qn. 3758),[2] and was already familiar to the City when Goschen explained it in his *Foreign Exchanges* in 1861.

Goschen quite recognised the other doctrine of bank rate, and pointed out that the attraction of foreign money was a device only appropriate to a "temporary derange-

[1] See my *Art of Central Banking*, pp. 135-6.
[2] *Ibid.*, pp. 140-1.

ment." If there is a more deep-seated disorder of the foreign exchanges, temporary borrowing "can only increase the evil."

The Cunliffe Committee were even more emphatic. Reliance on the policy of attracting money from abroad "would have resulted in the creation of a volume of short-dated indebtedness to foreign countries which would have been in the end disastrous to our credit and to the position of London as the financial centre of the world." The Macmillan Committee also regard the influx of short-term foreign balances under the influence of a temporary attraction "as the equivalent of a *negative* gold reserve and consequently as a potential source of future weakness." (Report, Sec. 298.)

Both theories of bank rate are correct. But whereas the restriction of borrowing tends to restore equilibrium by lowering the price level (or, as I prefer to put it, by contracting incomes and therefore compressing demand), the attraction of foreign balances is nothing but a stop-gap, and rather a perilous stop-gap.

But the attraction of foreign balances by a higher short-term rate of interest is a thing that anyone can understand, whereas the effects on incomes, demand and the price level are hardly to be appreciated without some theoretical knowledge. The former readily passes into the current talk of the City, and the latter does not.

The consequence in recent years has been that the more fundamental doctrine has been forgotten and ignored, and public discussions of bank rate policy have been conducted on the assumption that the sole question at issue was the extent to which an influx or efflux of short-term foreign money ought to be stimulated.

Had the money markets of the world been working in the old way, this superficial and fallacious view might have done little or no harm. The phases of the trade cycle used nearly to synchronise in different countries, so that, apart from a few exceptional cases, where, for example, the balance of payments was disturbed, all required much the same bank rate policy at the same time. A rise or fall in the Bank of England's rate was the signal for similar rises or falls elsewhere, and the movement of balances to or from London

usually meant simply that the country from or to which they came had failed to make the appropriate adjustment.

But in the period following the re-establishment of the gold standard in 1925 conditions were radically different. The synchronisation of phase was lost. Great Britain entered the gold standard in a state of severe depression, while business in the United States was in a state of prosperous activity.

Under such conditions foreign money might be attracted and gold temporarily acquired by a high bank rate. But at the same time the more deep-seated effect was not any the less at work because it was not thought of. Dear money tended to damp down enterprise, and to intensify depression or at any rate to delay revival. And as I have pointed out above, dear money in London tended to lower the world price level. That is to say it *raised the value of gold* and made the effort required to maintain the gold standard greater.

It might be supposed that, while depressing the world price level, it would act more directly on the British internal price level, and that there would be a differential effect favourable to the maintenance of the gold value of sterling. To some extent that would be so. But there was yet another result. The fall in the world price level adversely affected producers for export all over the world. And those who would suffer most would be those who had the smallest margin of profit to start with, that is to say, the producers in countries *already suffering from depression.* That was the position of the British producers. The fall in the world price level tended to cause a relative diminution of British exports. Here was an adverse effect on the balance of payments, and one that would become greater as the depression grew more severe. It could have been moderated or avoided by cuts in wages, but very little was done in that direction.

Thus there was a danger that the dear money which was intended to attract foreign balances, would intensify the depression and raise the value of gold, *without* having any favourable effect on the underlying foreign exchange position. And in so far as the policy was successful or was believed to

be successful in its immediate object, the fear of the foreign money being withdrawn at once became an obstacle to bank rate being reduced.

Even after the transition to cheap money in 1930, the same view of the functions of bank rate persisted. The City invariably thought only of how to protect the gold reserve by attracting foreign money. The ulterior effect of dear money in intensifying depression was left out of account.

Rigidity of Wages.

We have seen above (p. 45) that the disparity between wages and prices is in a way the fundamental factor in the trade depression. When we attribute trade depression to a shortage of demand, we mean a *relative* shortage of demand. Demand is insufficient to keep industry fully employed at existing rates of wages.

Must we not therefore place upon the rigidity of wages at least a co-ordinate responsibility for the breakdown? If the price level remained unchanged, a reduction of wages would revive profits and so open the way to equilibrium and normal activity.

To a country which either adheres to the gold standard, or at any rate abjures currency depreciation as a refuge from the depression, the external price level appears as a given fact, and credit regulation has to be applied to prevent incomes from so expanding as to attract an excess of imports. If wages are reduced, a given total of incomes corresponds to a greater volume of employment.[1] The internal price level falls, and the production and consumption of home trade products are both increased, but so long as there is no change in the external price level or in the total of incomes in terms of money, there will be no increase in the consumption of foreign trade products.

If there is no change in the external price level, however,

[1] It is often assumed that a reduction of wages necessarily means a reduction of incomes, and therefore of demand. But that is not so. In the first instance, what wages lose profits gain. The income from profits furnishes demand just as much as the income from wages.

the production of foreign trade products (whether exports, or goods competing with imports) becomes more profitable, and is likely to be stimulated. The result will then be a favourable balance of payments, and an actual *expansion* of incomes becomes possible. If the banking system allows this to occur, there will be a still further improvement in demand and employment. Alternatively there will be imports of gold or, if the gold standard is not in operation, a favourable movement of the exchanges.

Thus a relatively moderate reduction of wages may bring a very substantial increase in productive activity, *provided* a similar reduction of wages does not occur in other countries. In fact when one country lowers wages relatively to the others, it gains a competitive advantage and shifts part of the burden of depression from its own shoulders to theirs. France emerged in 1927 from the devaluation of her currency with wages relatively very much lower than in England, Germany or America. Even in 1930, when they had been rising steadily for three years, they were only 48 per cent. higher than in 1911 (in terms of gold), whereas in England they were 70 to 75 per cent. higher than in 1914. The increase was somewhat less in Germany than in England, but still greater than in France. In the United States wages were more than double what they had been before the war. The result was that while the other three countries were at that time already suffering from unemployment on an unparalleled scale, France had escaped with a very mild attack.

But it cannot be assumed that any one country will be able to reduce wages faster than its neighbours. When one sets the example, employers in all competing countries are at once supplied with a new and formidable argument for extracting similar concessions from their own work-people.

If we suppose all gold standard countries to reduce wages together, no one of them will gain a favourable balance of payments at the expense of the others. But the prices of foreign trade products can no longer be regarded as given and fixed. They will fall, and there is no certainty that they will not fall so far as to nullify the advantages of reduced wages. Producers will offer price concessions as an

inducement to dealers in commodities to order more. And so long as the price concessions are less than in proportion to the reduction of costs, it may be that dealers, counting on larger price concessions, will hold back. It is a matter of chance whether the vicious circle is broken, unless the banking system intervenes. The reduction of costs may give a specially favourable opportunity for intervention, but the decisive action still rests with the banking system, that is to say, with the central banks of the gold standard countries.

And that being so, it may fairly be asked, why should the central banks wait for a reduction of wages before taking action? If the gold price level has been *irrevocably* reduced, and is never to increase again, the price level of labour must sooner or later be adjusted to the price level of goods. The various disparities must somehow be eliminated, so that once again the due relation is established between wholesale prices and retail prices, between prices of primary products and prices of manufactures, between wages and profits. In that case the reduction of wages is a question that had better be grappled with once and for all.

But the central banks are by no means in a position to say that the gold price level has been irrevocably reduced.

Those who take the view that the world price level is determined by something beyond human control cannot take upon themselves to say what the future will bring Those who take the view that the world price level is determined by the action of the central banks themselves, will hardly say that those banks either should or will stereotype the existing price level indefinitely.

Professor Robbins[1] traces the depression "not to deflation, but to inflation." In the years up to 1929 in the United States "the volume of money was increasing so as to offset all cost reductions due to increased productivity. Inflation was taking place."

"The price level which refused to bend, eventually snapped. The slump is the consequence of an inflationary boom."

[1] *Lloyds Bank Monthly Review*, October, 1932, pp. 430-2.

He recognises that the subsequent fall of prices is out of all relation to the previous increase in productivity, and that deflation, in the sense of a slowing-up of the turnover of money, has actually taken place on a very considerable scale. That is " because there is no prospect of profitable investment. And why is there no prospect of profitable investment ? Because costs, which by reason of the inflationary boom have become too high in relation to prices, have not been reduced."

Professor Robbins's objection to " getting round cost rigidities by acting on prices," or, in other words, to restoring equilibrium by way of inflation, is that " it is the essence of inflation that it affects some prices before others, that its final effects are different from its impact effects, and that production is affected differently at different stages of the process. In an inflationary boom, it is this unequal incidence of the inflation which gives rise to the maladjustments which eventually produce the slump."

If the present depression were dealt with by a rise in the price level, that process would, in his opinion, be accompanied by " the kindling of false expectations and the launching of enterprises which have no basis of permanent profitability ; a short period of hectic activity and then a collapse again into depression."

Professor Robbins is mistaken in supposing that the period of activity that culminated in 1929 was accompanied by an increase in costs which made its continuance impossible. The index of wages in the United States rose from 232 in 1925 to 239 in 1929. The difference is negligible, and it is quite certain that wages did not attain a level which would seriously encroach on profits at the price level prevailing in 1929. It was not a rise in costs but a fall in prices that extinguished profits.

He is quite right when he says that inflation affects prices unequally. Like deflation, it causes disparities. But the disparities are *just the opposite* of those caused by deflation. Prices outstrip wages ; prices of primary products outstrip prices of manufactures ; wholesale prices outstrip

retail prices; profits, savings and capital outlay are disproportionately increased. These disparities did not occur in 1929. It is the contrary disparities that have occurred since.

It is a very perverse misconception to shrink from the "maladjustments" of inflation, when they are precisely the corrective required for the existing maladjustments, The reduction of wages itself would eventually reach the same corrective by another route.

The fall in the price level is still so recent that the adjustments required to re-establish the relativities of wages, prices, profits, etc., by this process have made very little progress and indeed in some directions have hardly begun. Those who elect to travel by that path, will find that the efforts and sacrifices are still before them. And if in the end the price level rises after all, the efforts and sacrifices will have been superfluous; a new period of instability will have to be faced.

A further difficulty in the way of the adjustment of wages is the impossibility of making any reliable estimate of the extent of the reduction required. In consequence of the disparities of price movements, no price index can afford exact guidance. As the approach to equilibrium reduces the disparities, we cannot foretell what the effect will be on the respective price levels of different groups of commodities; we cannot say how far the prices of manufactured goods will fall, or how far the prices of primary products will rise, or at what intermediate point we shall find the general price level by which wages ought to be governed. If we assume the working people to be ready and willing to make whatever sacrifice of money wages may be necessary to restore full employment, we still cannot tell them whether the reduction will have to be 50 per cent. or whether 20 per cent. will be enough.

At the time when the United States abandoned the gold standard, wages in that country had fallen 22 per cent. and possibly more from the level of 1929. Yet the ever-growing unemployment showed that that was far from being enough. It is possible that, to regain equilibrium by a

reduction of wages alone, the reduction would have had to be equivalent to the 60 per cent. reduction that had occurred in the prices of primary products. But that is quite uncertain. Similarly in Germany cuts in wages which were at least equal to those of the United States left equilibrium apparently as far off as ever.

Wage cuts on the heroic scale required are not really practicable. And, if they were, the result would be to stereotype the appreciated value of the monetary unit, and to leave unsolved the urgent and overwhelming problem of indebtedness.

Those who contend that wages should be adjusted to prices rather than prices to wages are like Grock moving the piano up to the music stool instead of the music stool to the piano.

Lord Bradbury in his Memorandum of Dissent from the Report of the Macmillan Committee specified four causes of the economic troubles of Great Britain, apart from the fall of world prices: "(i) the burden of unproductive debt, (ii) overlavish expenditure by the State and local authorities, (iii) excessive cost of transport and distribution and of the products of sheltered and protected industries, and (iv) the attempt by all classes to maintain a standard of living higher than is justified by the facts of the economic situation" (p. 263 of Report). Every one of these four, if not caused by the fall of prices, was directly aggravated by that fall. The real burden of debts, public expenditure, costs, and wages, so far as they were contractually or practically fixed in pounds, was enormously increased. If wages and consequently costs have become excessive, and if Lord Bradbury will not admit a rise of prices as a method of restoring their normal relativities, then it would seem to follow that a reduction of wages is the only way out. (It may be objected that greater efficiency might reduce costs. But to recommend "greater efficiency" as the remedy for our economic troubles is as helpful as to recommend good health as the remedy for an insufficiency of doctors.)

Yet Lord Bradbury, writing recently in *The Times*,[1]

[1] 1st August, 1933.

while he admitted rather grudgingly that a rise of the price level would alleviate the burden of debts, was moved to ironical dissent when Mr. R. H. Brand claimed that it was also required to rectify the disparity of wages. "The entrepreneur," said Lord Bradbury, "will profit at the cost not only of the *rentier* but also of the salary and wage-earner. . . . If his (Mr. Brand's) anticipations are generally regarded as well founded, his policy will probably be deprived of a good deal of influential support at present accorded to it."

Mr. Brand's policy, we may agree, will very likely be deprived of the support of those who think that the standard of living of the wage-earner ought never in any circumstances to be reduced. But surely it ought to receive in its place the support of those who think, like Lord Bradbury, that one of the principal causes of our troubles is "the attempt by all classes to maintain a standard of living higher than is justified by the facts of the economic situation."

If the wage-earner attempts to maintain too high a standard of living, he does so by asking for a higher rate of wages than employers can afford to pay. The result is unemployment, and in the end his standard of living is not higher but lower, because his average earnings are reduced in proportion to his employment.

In the United States in March, 1933, at the depth of the depression, the index of factory pay rolls was 36·9, as compared with an average of 108 in 1929. The amount of income to be divided among all the factory work-people, employed and unemployed, was 34 per cent. of what it had been. The cost of living was 71·8 per cent., so that the average *real* income was still reduced by more than half, though money wages per hour had actually fallen less than the cost of living.

CHAPTER X

THE RESPONSIBILITY OF CENTRAL BANKS.

WHATEVER other economic troubles there may be, whatever their causes and whatever the treatment appropriate to them, one outstanding calamity is the collapse of demand throughout the world. Production is far below normal, and what is produced is sold at greatly reduced prices. That is so because demand is restricted, and demand is restricted just because the proceeds of sale, out of which incomes are provided, are restricted.

Productive power is available, and the human needs that it is equipped to meet are as clamant as ever. The fault is in the mechanism of exchange. The flow of money has been cut short.

If so, where does the responsibility lie? In the modern world the responsibility is clear. The *sole* source of money in each country is the central bank. The hand-to-hand currency used by the public is composed of notes of the central bank.[1] The means of payment used to discharge the liabilities of one bank to another are cheques drawn on deposits at the central bank. The whole vast and complex structure of bank credit is built upon the " money " created by the central bank.

The obligations of the central bank, whether notes or deposits, are money, and against its obligations it holds equivalent assets. An increase or decrease of its assets is accompanied by an equal increase or decrease in its liabilities, and therefore in the supply of money.

[1] This is not literally true of the United States. But of the various forms of currency in use there Federal Reserve Notes alone are capable of free variation, and that free variation is at the discretion of the Federal Reserve Banks.

So long as conditions are anything like normal, the power of the central bank over the monetary system is complete. The superstructure of bank credit responds to any change in the supply of money in the manner I have already described. If the action of the central bank is restricted by statutes requiring it to maintain the gold standard, and prescribing the character of the assets it may hold and the amount of gold to be included among them, that means not that its power over money is limited, but that the manner in which that power shall be used is in these respects dictated by the legislature.

The gold standard itself presupposes the power of the central bank to control the value of money. The duty of the central bank is to keep the value of the currency unit at par with the value of a prescribed amount of gold in world markets. In order to discharge that duty, it *must* have the power to modify the value of the currency unit whenever it departs from this standard.

The only satisfactory way of escape from the trade depression is by the restarting of the normal process by which the banks lend, and generate incomes and demand.

In a sense a general reduction of wages would be an alternative. If the price level remained unchanged, the reduction of wages would revive profits, and so open the way to equilibrium and normal activity. But even this would require the banking systems of the world to take action to maintain the price level. It does not divest them of responsibility. And it is open to the serious objection that it would stereotype existing burdens of debts and budgets, which have been made almost intolerable in some cases by the appreciation of the units in which they are reckoned.

Thus the reduction of wages offers no more than a partial remedy. The *only* real remedy is the expansion of credit by the central banks.

There is controversy as to whether the depression can be cured by purely monetary means. The controversy is misdirected. It is the *end* that is purely monetary, not the means. The end is the enlargement of demand ; an increase in the number of monetary units offered for goods. The

means must consist in various methods of modifying human behaviour.

Government Expenditure as a Vehicle of Inflation.

I have indicated briefly above (pp. 3-8) the processes by which the banking system influences the economic activity of the community. It is through the short-term lending of the banks, whether to those who produce or buy commodities with a view to sale, or to those engaged in capital enterprises.

Mr. J. M. Keynes, in his *Treatise on Money*, takes the view that investment in working capital or in stocks of commodities is not sensitive to the rate of interest. *If that is so*, then the only factor that can be modified by credit regulation is investment in fixed capital, and, to dispel a depression, it is necessary to wait for the short-term rate of interest to affect the long-term rate, and then for the long-term rate to affect the amount of capital outlay. That must be a slow process, and, if everything depended on an increase of expenditure on fixed capital, there would be good reason to seek some more direct method of attaining that result. Mr. Keynes has in recent years been an assiduous advocate of Government expenditure as a means of relieving depression. If at any time the response of capital outlay to a low rate of interest were found to be unduly delayed, he would supplement private enterprise by a Government programme.

At a time when the investment market is working normally, and discharging successfully its appropriate function of equalising new flotations with the supply of savings out of income, if the Government raises funds for its programme from the market in the ordinary way, nothing is done to induce greater activity. The Government merely diverts to its own programme a part of the savings that would otherwise be available for capital outlay by private enterprise.

In order that productive activity may be increased, *new* money that would not otherwise have been spent must somehow be drawn upon. There must, in fact, be a creation of credit, either directly, through bank advances to the Government, or indirectly, through bank advances to con-

tractors or to the subscribers to the loans issued by the Government. The capital programme is no more than a vehicle of inflation, and it is open to the obvious criticism that it would be just as effective to have the inflation without the capital programme.

On the other hand, there is the possibility that the investment market may *not* be working normally. Suppose that the distrust of enterprise is such that a part of the accruing savings of the community is not invested, but is accumulated in idle deposits. May it not be that when commercial and industrial issues fail to attract these savings into investment, Government issues can do so? In that case the Government's programme would be using new money and generating new incomes, without encroaching on private enterprise.

The utility of this device for mobilising idle savings is, I think, less than appears at first sight for two reasons. In the first place, the big idle deposits which form a conspicuous feature of a trade depression are not, for the most part, savings awaiting investment. They are rather idle working capital. Traders who find their transactions falling off tend to hold working capital in the form of money on deposit. A trader who is liquidating a part of his stock-in-trade will in the first instance apply the proceeds of sale to the repayment of bank advances. But some traders have sufficient capital of their own to cover their maximum needs of working capital, and avoid resorting to bank advances at all, and others find that they can conveniently reduce their working capital substantially below the level at which all their bank advances have been paid off. In either case, the unused working capital appears as idle cash balances. These balances are not composed of savings which cannot find satisfactory openings for investment; they are composed of the proceeds of sale of goods by traders who think it advisable for the time being not to replace the goods sold by fresh purchases.

Secondly, it must be remembered that the investment market *already* offers securities at whatever prices may be attractive to the market. A Government issue does not

break new ground. All it does is to offer a gilt-edged security at a fractionally lower price than those already on sale in the market. The additional attractiveness to the investor is very slight. No doubt, if the issues are very large, the effect on the market will be substantial. But then that means that the long-term rate of interest is being *raised*, and the market is being made less favourable to capital issues by private enterprise. And even so, it is not at all certain that the new issues will be any the more attractive to the investor. To make them attractive, the investor should be led to believe that the prices of Government securities are likely to rise. An *isolated* issue brought out at a fractionally lower price than prevails in the market has this effect because the market is expected soon to recover from a momentary disturbance. But if it forms part of a *series* of issues, the effect is the contrary.

At a time of depression the prices of gilt-edged securities rise. It may be that far-seeing people, attributing the rise to the shrinkage of profits which makes rival investments unattractive, regard it as temporary. But that is not the attitude of the dealers and investors who form the market. On the contrary, it is just when the prices of gilt-edged securities are highest that these securities are most sought after. The appearance of redundant savings, in so far as it does occur, is due not to the unattractiveness of the investments offered by the market, for the market quotes whatever prices will make them attractive ; it is due to the reluctance of promoters to start new ventures. That reluctance can only be effectively overcome by reviving demand, and, till that is accomplished, the best treatment is through a low long-term rate of interest.

Credit Regulation and Commercial Borrowing.

All the foregoing reasoning has been subject to the original assumption that borrowing for the production or purchase of commodities cannot be stimulated. There has, I think, been a very prevalent tendency among economists

to trace the effect of the rate of interest exclusively through investment in fixed capital, because the classical theory of interest based on the cost-saving yield of capital goods does not apply directly to investment in circulating capital at all. The cost-saving yield of capital in the form either of goods in course of manufacture or of goods held in stock is not susceptible of measurement.

But that is no reason for neglecting the effect of the rate of interest on circulating capital. A very great part of bank advances and especially of bills, represents *commercial* borrowing, that is to say, its purpose is to enable traders to carry stocks of commodities in the interval between purchase and sale or between purchase and use. There are, of course, bank advances to finance goods actually in course of manufacture or in transit, and these advances cannot easily be contracted or expanded except as a *result* of decreased or increased activity. But the commodities reposing in stock in marketable form invariably account for a very large part of the credit facilities required in any highly developed community, and any trader's holding of these commodities can be varied within wide limits with very little inconvenience to him. This applies not only to the finished goods in the hands of retailers and wholesale dealers, but also to the materials and intermediate products awaiting use in the hands of manufacturers. All alike are in a position to delay their purchases whenever the charges for borrowing money are raised, or their bankers show in other ways a reluctance to lend. And, when the economic system is working normally, a reduction of charges and a relaxation of credit would meet with an immediate response in a hastening of purchases, and a consequent stimulus to productive activity.

If we seek numerical data indicating the magnitude of these stocks of commodities, the statistics of balance sheets appended to the American income tax returns afford some enlightening information. The "inventories" of those manufacturing and commercial companies which furnished their balance sheets for 1928 amounted to $18,000,000,000; and their short-term indebtedness to $13,000,000,000. The returns cover the great majority of corporations subject

to tax, but they entirely exclude private firms and partnerships.[1]

The goods actually undergoing a process of manufacture, in the loom or on the lathe, could only form a very modest proportion of the total. It is clear that the amount of goods in marketable form held in stock must have been very great. A relatively small change in the total, if made over a short period, would have an enormous effect on production. If traders sought to increase their stocks by $500,000,000, and the effect on industry of the additional orders given were concentrated in one month, the consequent increase in production would be at the rate of $6,000,000,000 a year, or, say, 7 per cent. of the national income.

To say that commercial borrowing is sensitive to credit conditions is not to deny the sensitiveness of the investment market altogether. But the response of the investment market is necessarily much slower. When the banks relax credit, they offer an inducement to investors, speculators and stock-jobbers to hold more securities with borrowed money. That makes the investment market more favourable, and so tends to stimulate new issues. But the stimulus to economic activity is not felt till the capital outlay arising out of the new issues actually begins, and that is likely to be after a long preparatory period.

Theoretically the Government can, with suitable organisation, start capital outlay with less delay. It can prepare plans for a selection of projects in advance of actual needs, and can then, as soon as the occasion requires, put them in hand as fast as contractors can be selected. But in practice plans prepared some time beforehand are almost certain to require reconsideration and adaptation. All that can be expected is that the Government may stimulate capital outlay a little in advance of the response of the investment

[1] It may be mentioned that business and partnership incomes accounted in 1928 for $5,174,000,000 in the individual income tax returns, though we cannot say how much of this represented manufacturing and commercial concerns. Manufacturing and commerce accounted for $5,991,000,000 out of $10,618,000,000 of income from corporations.

market to easy credit. It is still likely to lag far behind the response of commercial borrowing, which in the absence of specially unfavourable conditions should be almost instantaneous.

The promptitude of the response is of decisive importance. In virtue of the inherent instability of credit, revival once started tends to gather impetus. Provided the corner is really turned, a very modest movement will soon be amplified to any required extent. The stimulus to commercial borrowing may ordinarily be relied on to turn the corner before a capital programme designed by the Government as a vehicle of inflation can be brought to bear.

The Credit Deadlock.

But our examination of the course of events during the present trade depression has disclosed a weak point in the power of the central banks. The functioning of the superstructure of bank credit requires the co-operation of lenders and borrowers. Ordinarily the willingness of borrowers can be counted on, and credit control requires nothing more than a judicious regulation of the charges made by lenders. There is a perpetual pressure upon lenders from those desiring to borrow, and any relaxation of the lenders' resistance will quickly stimulate borrowing, and will generate additional incomes. Now, however, the borrowers have become unwilling.

There are, I think, many among the advocates of Government expenditure as a remedy for depression who would recognise that it is superfluous so long as the required expansion can be induced by the ordinary methods of credit regulation, but who would recommend it as a way of escape from such a state of deadlock. They would say that it is not enough to increase the supply of money, but that something must be done to *set the money in motion.*

Cheap money fails to induce traders to borrow. The market is overflowing with money, but no one wants to use it. If the Government pays away newly created or newly mobilised money in the form of incomes to the people it

employs, the money will reappear forthwith as demand. Increased sales will induce increased productive activity, and therefrom will spring a further increase of incomes and of demand and so revival will be started.

This argument depends on two assumptions, first that the inoperativeness of the normal methods of credit relaxation is absolute, and secondly that the capital outlay of the Government will suffice not merely to mitigate the depression but actually to overcome the deadlock.

I think the former assumption is often too readily made. It is easy to point to *certain classes* of borrowing which no measures of credit relaxation could be expected to stimulate. Under-employed industries will not extend their capacity on any terms. And traders who are convinced that the demand for their products is shrinking and prices are falling will refuse to buy more than is needed to keep up the minimum stocks essential for carrying on their business.

But a market in which *everyone* is expecting a fall of prices is an absurdity. The anticipated fall would immediately be transformed into an actual fall, for there would be no buyers.

Suppose, in the first instance, a decline in the consumers' demand for a certain product. Sales fall off, and the traders dealing in the product order less from the producers. If, in consequence of the flagging demand, some of the traders anticipate a fall of price, these traders will reduce the orders they give *below* the amount of their current sales. But the producers, finding orders dwindling, will then cut their prices. It may be that the producers, unable to reduce their costs, cannot bring prices down low enough to suit the dealers. But that can only be a temporary position, for the cost of production is one of the factors that the dealers must take into consideration in estimating future price.

If the dealers think that the producers can and will reduce costs further, they can put pressure on the producers to do so by holding back orders, but eventually they are driven to give orders to the amount of current sales in order to keep up their stocks to the essential minimum. Thus it is only intermittently that an anticipated fall of price becomes

a predominant factor in a market. It occurs when there is a difference of opinion between the dealers in a product and the producers, and such a difference of opinion comes to an end either through the producers reducing prices in conformity with the dealers' expectations, or through the dealers being compelled to resume purchases from the producers.

Different products do not pass through the same phase at the same time. A measure of deflation affecting the entire credit system will cause a simultaneous decline of orders in many and perhaps in nearly all industries, but the subsequent adjustments in different industries will depend on a variety of factors affecting each individually. The pessimism which makes traders in any one industry reluctant to buy, and therefore unwilling to borrow, alternates with more normal conditions in which dealers are replenishing their stocks to the extent necessary to keep pace with sales. Sales are on a reduced scale, but at those periods when the market is not disturbed by speculative anticipations of a further shrinkage of demand or of a further fall of prices, the operations of the dealers on this reduced scale become normally sensitive to credit conditions.

Open Market Purchases by the Central Bank.

The obstacle to credit expansion is not a state of uniform pessimism prevailing continuously in all industries. It is a succession of impulses of pessimism sufficiently severe and affecting a sufficient range of industries at any one time to offset the tendency to recovery arising in the other industries which remain amenable to credit relaxation. The problem is not one of awakening a response in an economic system which is altogether dead to enterprise, but of *reinforcing* a tendency to revival which always exists in a part at any rate of the system, but which is not by itself powerful enough to prevail. Even cheap money unaided by any other measures might reasonably be expected to start revival eventually, whenever the pessimistic phases happened to be somewhat less pronounced than usual. To wait for such a conjuncture might mean an indefinite delay, but it is not to be inferred that that exhausts the possibilities of credit relaxation.

Nor is it to be assumed that, if a new motive were given to the banks to lend more, they could not find additional borrowers. Borrowers have other circumstances to consider, besides the rate of interest they have to pay. And prominent among these is the willingness, or the reverse, of their bankers to lend.

Purchases of securities by the central bank in the market have the effect of creating new money, and that new money, so far as not required elsewhere, appears as an addition to the reserves of the other banks. By this process their reserves can be expanded *to any desired extent.* They can be flooded with idle money. And here is the motive for additional lending.

So long as the reserves of the banks bear the accustomed proportion to their deposits, they are perfectly contented to acquiesce in the existing volume of advances. As soon as they begin to be encumbered with idle money in excess of the accustomed proportion, each bank tries to get rid of its unremunerative surplus by lending more than its competitors. There is a definite change in their attitude towards those of their customers who seek to borrow.

The presence of redundant idle reserves will be a *continuing* motive to the banks to find opportunities of lending. When bank rate is reduced, the commercial banks, as soon as they have made the corresponding reduction in the rates they charge, have shot their bolt ; there is nothing further to be done, but to await the effect upon intending borrowers. But when the banks are saddled with redundant cash, their customary proportions are upset, and they will *remain dissatisfied* until they have induced the appropriate extension of their credit assets.

We can hardly suppose that the banks will be able to extend their advances to correspond with their increased reserves *immediately.* There is likely in any case to be some delay, an interval during which their cash proportions are higher than normal. Under those conditions banks usually try to make up their earning assets by buying investment securities in the market. But to a great extent their purchases of securities will result merely in the investment

market paying off advances, so that the desired increase in the banks' assets is nullified. If the banks persist in buying securities beyond the point at which the indebtedness of the investment market is reduced to a minimum, the result will be a disproportionate rise in the prices of gilt-edged securities.

Banks cannot afford to run the risk of a capital loss, and will be deterred from buying long-dated securities at prices which seem to be temporarily or artificially enhanced. There will be all the greater pressure on the banks to find additional borrowers. And at the same time the investment market will have been made more favourable to new issues.

Consider, on the other hand, the limitations of Government expenditure as a means of escape from the credit deadlock. In the first place there is the consideration of *time*. A capital programme of the kind advocated cannot be started till after a considerable preparatory interval. Mr. Keynes fully recognises this. Writing in *The Times* in reply to critics of his articles, "The Means to Prosperity," he said: "We should not refrain from good schemes because they will take some time to mature or because the expenditure they involve will be spread over several years. . . . I do not believe that we shall regret five years hence that works started to-day will be still, in some instances, uncompleted." Secondly, there is the question of magnitude. There is no *certainty* that, even when it is started, the programme will achieve its object. For it will have to meet precisely the same obstacles as any alternative method of credit expansion. A programme of £100,000,000 a year sounds impressive, but it is only about 3 per cent. of the national income. A *sudden* increase of 3 per cent. might quite possibly effect the vital transition, and restore the normal flow of credit. A *gradual* increase of that amount spread over many months would be very unlikely to do so.

The programme might be very much greater. But then there arises a very real difficulty in finding works ripe for execution which are really beneficial. There is a danger of vast sums of money being wasted.

Budget Deficits and Inflation.

In fact, if what is wanted is a momentary impulse to restart economic activity, it would be more hopeful to look for it in a reduction of taxation than in a programme of expenditure.

Indeed, there is nowadays a very common tendency to associate budget deficits with inflation. The great inflations of history, and particularly those which followed the war in the years 1919-23, were the direct result of the overstrain of national finances. If what is desired is to increase the amount of money offered for goods, does not that experience point the way?

In reality budget deficits are not inflationary at all so long as they are met by genuine borrowing. Even additions to the floating debt are not inflationary, if accompanied by an appropriate degree of stringency in the money market to prevent any expansion of credit from occurring. It is when the banks cannot take any more Government paper on these terms, and their cash reserves have to be augmented to enable them to do so, that inflation begins. That means that the central bank *creates cash*; that it can do by itself lending to the Government.

Inflation through a budget deficit depends, like the open market policy, upon the acquisition of additional assets by the central bank. When a Government is said to pay its way by printing paper money, the process is not essentially different. The paper money is spent by the recipients and is passed on by the traders into the banks, where it assumes the shape of idle reserves. Whether they retain it as paper money or deposit it in the central bank makes no difference. In either case the obligations of the central bank count as cash, and they are balanced by the advances to the Government. The result is just the same when the Government is credited with a deposit, and no paper money is issued beyond what the public choose to take.

A superstitious belief in a budget deficit as an instrument of inflation has grown out of the experiences that followed the war. The colossal scale of the deficits of that period

has been forgotten. The French deficit in the year 1919 exceeded 40 milliards, and the floating debt increased by 36 milliards, including 8 milliards of advances from the Bank of France. And even so the financial reforms of M. François-Marsal in 1920 completely restored control of the situation, and stopped any further inflation till 1923. Recent French deficits of 5 or 6 milliards have had absolutely no inflationary effect.

In the United States deficits have attained greater dimensions. That for the year ending June, 1932, was $2,837,000,000. If we deduct $412,000,000 applied to debt redemption and $625,000,000 of capital items, the current deficit is still no less than $1,800,000,000. It is possible that the existence of the deficit did help towards the inflationary effect of the Federal Reserve Banks' open market purchases in the summer of 1932. But there is no evidence that it made much difference.

If measures were resorted to to enlarge demand by expanding credit, *and were found to fail*, there might be a case for reinforcing them with a big budget deficit. A proposal for deliberately incurring a deficit would, no doubt, be stigmatised as improvident, in that it would add a considerable sum to the national debt with no assets to show for it. But the unproductive burden thus placed upon the public might easily be less than that arising from a capital programme of the requisite magnitude, particularly if the assets created by the programme involved a net recurrent outlay for maintenance, in addition to the debt charges.

Idle Money.

But before any excursions into the eccentricities of unsound finance are justified, it ought first to be ascertained whether the desired expansion can be induced without them. In considering on what scale any expansive measures, such as open market purchases, ought to be applied, it is essential to take into account the effects of the depression itself upon the monetary position. A crude application of the quantity theory of money is likely to be very misleading. Bank

deposits are swollen by idle working capital. Uninvested savings accumulate. A distrust of banks may give rise to the hoarding of currency, or a distrust of currency to the hoarding of gold. In a word, the rapidity of circulation of money is greatly diminished. Increased issues of currency are needed to counteract the diminution of the rapidity of circulation. The currency in circulation in the United States rose from $4,598,000,000 in February, 1931, to $5,627,000,000 in February, 1932, while the depression was rapidly growing worse and the price level falling. The Federal Reserve Banks had to provide cover for this $1,000,000,000 of currency before they could claim to have brought about any effective expansion at all. Indeed, when their open market purchases of $1,100,000,000 bore fruit in surplus reserves of $500,000,000 among the member banks, this was only possible because there had been a big shrinkage in the deposits against which the reserves had to be held. And the deposits themselves fell only from $34,826,000,000 at the end of 1928 to $25,492,000,000 at the end of 1932, or 27 per cent., at a time when the national income fell by more than 50 per cent.

In Great Britain there has actually been a substantial increase in bank deposits during the depression. The Bank of England has been buying securities since the spring of 1932, and has raised bankers' deposits from an average of £64,700,000 in 1931 to one of £100,400,000 in the first half of 1933. But the resulting increase in the cash resources of the joint stock banks has been no more than sufficient to provide the customary proportion of their increased deposits. The deposits have been expanded by idle working capital as invariably occurs at times of depression, and it seems likely that the tendency has been accentuated through the conversion of the 5 per cent. War Loan into a 3½ per cent. funded stock. The 5 per cent. War Loan, having a yield substantially above that of other Government securities, and being prevented from rising far above par by the Government's option of repaying at par at any time after 1929, was a very convenient temporary investment for idle working capital, with practically no risk of capital loss. The

new 3½ per cent. funded stock[1] follows the gilt-edged market, and is suitable rather for a permanent investment. It may well be that much idle working capital previously placed in War Loan has since been held on time deposit. The banks have meanwhile been acquiring Government securities to back their increased deposits.

At any rate, the plain fact is that the increased bank deposits co-exist with decreased business, and the Bank of England's purchases of Government securities have not been pushed to the extent required to start revival.

When it is found that expanding currency and expanding bank deposits do not bring revival, it is sometimes contended that it is no use creating additional credit, because it will not circulate, but will merely be added to the idle balances. And without doubt it ought not to be taken for granted that every addition to the volume of bank balances will necessarily and automatically be accompanied by a proportional addition to demand.

But people do not have an *unlimited* desire to hold idle balances. Because they already hold more than usual, it does not follow that they are willing to hold more still. And if in the first instance a credit expansion seems to do no more than swell balances without increasing demand, further expansion is bound ultimately to reach a point at which demand responds.

A variant of the same argument is to be found in the fear that money may flow into the Stock Exchange instead of into industry. The fact is that the Stock Exchange holds practically no idle money. There is no branch of business in which there are better facilities for keeping down cash balances to a minimum. Money lent to the Stock Exchange is passed on to be placed in new issues and through them it pays for new capital goods. If it is not required for new issues, it pays off part of the bank advances to the Stock Exchange; in that case what happens is not that the money is locked up in the Stock Exchange, but that the intended creation of credit has been abortive. Credit has been

[1] It has no "due date" but is redeemable at the option of the Government in or after 1952.

created only to be extinguished. The banks that wish to create additional credit must try again.

The Fear of Inflation.

The fears that efforts to expand credit will be defeated in one way or another by the pessimism of traders are not wholly irrational. But that pessimism is no more than an obstacle to be overcome. And the much more usual view is that inflationary measures take effect only too easily.

The real obstacle to measures of credit expansion is not the fear that they will not be effective, but the fear that they *will*.

Yet what can be more irrational than that fear? The term inflation is very loosely used; sometimes it means any expansion of the currency or of bank credit, or any such expansion not covered by metallic reserves; sometimes it means an issue of currency by way of advances to the Government or else an issue backed by Government securities. But whatever the precise measures classed as inflationary may be, their common characteristic and the sole source of danger attributed to them is that they tend to bring about an enlargement of demand and a consequent rise of prices. And an enlargement of demand is the essential condition of recovery. To warn the world against inflation is to warn it against economic revival.

If the economic system of the world had adjusted itself to the existing price level, there would be good reason to object to a renewed change. Inflation is rightly condemned, because it means an arbitrary change in the value of money in terms of wealth. But deflation equally means an arbitrary change in the value of money. The reason why inflation is more condemned and feared is that it is apt to appear convenient and attractive to financiers in difficulties. The consequences of deflation are so disastrous and the difficulties of carrying it out so great that no one thinks it necessary to attach any stigma to it. And since from time to time deflation has to be applied as a corrective of inflation, it is given the status of an austere and painful virtue.

But essentially it is not a virtue at all, and when it is wantonly imposed on the world, not as a corrective of inflation but as a departure from a pre-existing state of equilibrium, it ought to be regarded as a crime against humanity.

Just as deflation may be needed as a corrective to an inflation to which the economic system has not adjusted itself, so at the present time inflation is needed as a corrective to deflation. If the monetary affairs of the world were wisely governed, both inflation and deflation would be avoided, or at any rate quickly corrected in their initial stages. Perhaps the ideal of monetary stability will be achieved in the future. But to start by stereotyping conditions in which prices are utterly out of equilibrium with wages and debts, and with one another, would be to start the new policy under impossible conditions.

The dread of inflation has been greatly accentuated by the experiences of the years following the war, when so many countries found that the monetary situation got completely out of control. The vicious circle of inflation gained such power that it wrecked both the tax system and the investment market; it cut off all the normal resources for meeting the public expenditure, and left Governments to subsist on issues of paper money. No country would willingly endure such a situation.

But that kind of monetary collapse does not come easily or suddenly. There is, I believe, no case in history in which inflation has got out of hand *in less than three years*. That applies not only to the inflations that followed the war, but to the Continental currency of the American War of Independence, to the French *assignats*, and to the Confederate currency in the American Civil War.

The fear that one slip from parity means a fall into the abyss is entirely without foundation. Especially is that so at a time when deflation is raging. The first impact of a monetary expansion is then felt rather in increased output than in higher prices. It is only when industry has become fully employed that the vicious circle of inflation is joined, and prices begin to rise. That stage can only be reached after a considerable interval, during which it is only too easy

to stop the inflation and with it the revival. Since 1929 the great majority of countries have abandoned the gold standard and seen their currencies depreciate. Yet not in one case has the depreciation got beyond control. In Japan the financial situation has been complicated by heavy military expenditure, and Japan is almost the only country in which monetary depreciation has gone far enough to bring something like normal industrial activity. But even there there is no serious risk of depreciation being carried to excess.

Inflation is sometimes deprecated on the ground that its stimulative effects can only be temporary. Industry, it is said, will be active so long as demand is expanding and prices are rising; the moment expansion stops, depression will recur. That the transition from lower to higher prices will be attended by some dislocation there is no need to deny. But provided the price level is not allowed to fall back below the equilibrium point, there need be no depression when the transition is completed. The depression arises when, as in the case of the trade cycle, the price level is allowed to rise higher than can be permanently maintained. There is no obstacle to the price level being kept up and stabilised after the desired inflation has been completed, provided no extraneous influence (such as an insufficiency of gold) is allowed to interfere with it.

If inflation is allowed to go too far, it will bring about a rise in wages. In that case depression might be caused by an attempt to bring down the price level below what would be consistent with the new wage level. But in practice the rise in wages lags far behind the rise in prices. To escape from the depression we need not push inflation beyond the equilibrium point, and under those conditions there will be no pressure to increase wages (except some levelling up in industries where they have been unduly reduced).

CHAPTER XI.

International Action under the Gold Standard.

The first edition of this book was written in August, 1931. At that time the gold standard was still in operation in Great Britain, but was already in imminent danger. (The book in fact was published on the 17th September, three days before the suspension of the gold standard was announced.)

It was necessary in those circumstances to approach the problem of the Trade Depression on the assumption of a continuance of the gold standard. The problem of enlarging demand was an *international* one; it meant reducing the purchasing power of gold.

There was, it is true, the alternative for any one country of restricting imports by higher protective duties and other devices.

My comment on that at the time was as follows :—

" As an emergency measure in a trade depression, protection suffers from the vital defect that it is avowedly and essentially a policy for promoting revival *in one country* at the cost of intensifying depression in the others. If it really promised a thorough cure, it would of course be difficult to restrain any country from resorting to it, even though when all did so none gained any benefit. But in reality the benefit it offers is very modest, perhaps almost insignificant, and for a great exporting country any measure which threatens to retard a world revival is injurious."

If now, after the lapse of two years, this requires any modification it is that, when higher duties are accompanied by import quotas, exchange restrictions, and defaults on external obligations (a régime which was only just beginning

two years ago), the effects are anything but insignificant, though, as was shown above (p. 50), the relief is still only partial.

Far from regarding such measures as a way out of the depression, even convinced protectionists would now rather describe them as a way *in*. Indeed one of the obstacles which advocates of a monetary remedy have to encounter is the belief that import restrictions and exchange restrictions are the primary cause of trouble, and that all efforts ought to be concentrated on removing them.

The extravagant import restrictions from which the world is suffering are often denounced as manifestations of economic nationalism or autarcism. They are, no doubt, supported and defended by advocates of such a policy. But the true reason of their being is the desire to maintain currencies at gold parity (or within what is regarded as a reasonable distance of gold parity), in face of an appreciation of gold which would make the effort, unassisted by any restriction of imports, insupportable. They *cannot* be got rid of unless either the countries concerned acquiesce in a depreciation of their currencies, or the value of gold in terms of goods falls.

In August, 1931, the problem to be solved was the reversal of the appreciation of gold. The value of gold was the resultant of the monetary policies of all the gold standard countries, but in practice it was only necessary to take account of the three principal ones, Great Britain, the United States, and France.

Up to July, 1931, all three had low discount rates, but, as we have seen, the credit deadlock continued unbroken. What has been said above as to the need for open market purchases is applicable to the three in conjunction. The Bank of France had not the legal power to buy securities. It was the fault not of the Bank but of the French Legislature that the Bank was precluded from playing any active part in the world's credit system.

On the other hand, the American Federal Reserve Banks, even before the passage of the Glass-Steagall Act of February, 1932, had very wide powers of buying Govern-

ment securities. Government securities were not eligible as backing for the note issue, and the deposits required a cash reserve of 35 per cent. But there was nothing to prevent the Federal Reserve Banks from holding Government securities to the amount of 65 per cent. of their deposit liability, and the whole of their own capital and surplus. With a deposit liability (till July, 1931) of $2,400,000,000, that meant that they could have held something not far short of $2,000,000,000 of Government securities.

If it be postulated that the Bank of France was helpless to exclude gold, a very special responsibility certainly devolves upon the United States. The very intensity of the depression in the United States was the means of attracting gold. It set the pace for depression in all other countries. In general when one country in a gold standard system suffers a more severe and rapid deflation than the rest, it receives gold from all of them. If the gold forms a much smaller proportion of the reserves of the many which lose it than of the one which receives it, the deflation in the latter is checked at the cost of relatively little disturbance in the others. But this is far from applying to the United States. By September, 1931, the United States held $5,015,000,000 of gold, while outside France the rest of the world (exclusive of Russia) held no more than $4,500,000,000. Since the beginning of 1930 the United States had absorbed $723,000,000. For every country in the gold-using world the problem of maintaining the gold standard was identified with that of keeping pace with deflation in the United States.

The open market purchases of the Federal Reserve Banks had stopped the inflow of gold in the summer of 1930. The inflow that started in November, 1930, might have been similarly stopped. Even if further open market purchases at that time had failed to overcome the credit deadlock in the United States, the securities bought would at any rate have taken the place of gold among the assets of the Federal Reserve Banks, and would have left the gold thus set free to facilitate credit relaxation in the rest of the world.

A tentative reversion to the policy of buying securities

in June, 1931, was too late and on too small a scale to have any noticeable effect. It went but a little way to compensate for the hoarding of currency that had set in.

When open market purchases were resorted to on a grand scale in the spring of 1932, there was much lost ground to make up. Hoarding had increased and gold had been lost. The net loss of gold between September, 1931, and June, 1932, was $1,100,000,000. But none of this went to relieve the situation, as might have been possible a year before. It was used up in replacing the dollar assets of central banks and commercial banks in Europe.

The Bank of France indeed had resumed the initiative. While still precluded from inducing revival through open market purchases, it was free to intensify deflation by liquidating its foreign exchange reserves. Between September, 1931, and June, 1932, it reduced its holding of foreign exchange by 17 milliards (£136,000,00) and increased its gold by 22¾ milliards (£182,000,000).

Returning to the situation before the crisis of September, 1931, we may consider the part devolving upon England. The Bank of England, it may be admitted, with a gold holding never rising much above £160,000,000, could not afford to face an outflow of gold nearly so well as the United States with £900,000,000 to £1,000,000,000.

But that does not mean that it would not have been worth while to risk a heavy loss of gold for sufficient reason. The pivotal position of London places a very special responsibility upon the English banking system in the regulation of credit throughout the world. The power of London to contract world credit was only too disastrously illustrated in 1925 and the following years. In the contrary case credit relaxation in London extends to merchants all over the world an inducement to buy more freely. Producers in other countries feel an increase in demand, production expands and with it incomes. In so far as this international influence is at work, the credit relaxation does not cause any loss of gold. Gold is only taken by those countries which for any reason do not respond to the credit expansion or resist it. And the gold that goes to them tends to evoke a response

and to overcome resistance. Had the Bank of England embarked in 1930 and 1931 on an energetic policy of credit relaxation, the loss of gold involved might after all have been quite moderate.

Where indeed would the gold have gone ? Both the French demand for gold and the American were governed by their currency requirements, and there was no reason why those requirements should have been increased merely through the release of gold from England. In fact had credit relaxation originating in England mitigated the depression, the effect would have been rather to diminish than to increase the currency requirements of both countries. For the depression caused first a stagnation of balances and a diminished supply of bills and then the hoarding of currency.

On the other hand, had the pressure which drew " distress " gold from Japan, Australia, Argentina, Brazil and Germany been avoided, the Bank of England might have had to find the £100,000,000 which was provided from those sources.

Perhaps in one way or another the losses of gold would have been heavy. Perhaps the Bank of England's holding might have been reduced to £50,000,000. But where would have been the harm ? Gold reserves exist to be used. They ought to be carefully conserved except in a great emergency. But the depression of 1930 was a great emergency.

It may be objected that confidence would have been forfeited. Not at all. The lesson of experience, illustrated for centuries past by innumerable runs on banks, is that what inspires confidence is readiness to pay ; what forfeits confidence is reluctance or hesitation The willing release of gold *as a deliberate act of policy* would not have impaired confidence.

And the release of gold would have been a direct attack on the root cause of the depression. The depression arose from the appreciation of gold. What better treatment than a release of gold ? An increased supply should cheapen it.

And it is likely that in practice the loss of gold would have been found to be quite moderate. The *willingness* to

release it, made manifest in the relaxation of credit, would have sufficed to cheapen gold, without any considerable amount having to be actually sold.

Of the policy of letting gold go, I wrote in the first edition of this book: "It may be said that so great a loss of gold would risk the gold standard. But the greatest threat to the gold standard is the appreciation of gold, which makes the effort of maintaining the gold standard so much the greater." And more than a year earlier, when giving evidence in April, 1930, before the Macmillan Committee on Finance and Industry, I expressed the view that the credit restriction policy of 1929 had been "heading straight for the abandonment of the gold standard," because it tended to lower the world price level (Qn. 4215).

It is now possible to add that the appreciation of gold *did* destroy the gold standard. A relaxation of credit in 1930 or 1931, carried on through lavish purchases of securities by the Bank of England, regardless of losses of gold, was perhaps the only way of saving Great Britain from the suspension of the gold standard. And in 1932 the open market purchases of the Federal Reserve Banks offered for a moment the prospect of making the gold standard possible for the United States. The policy was dropped, and there also the gold standard had to be abandoned.

The suspension of the gold standard by Great Britain and the United States, leaves the value of gold still an international matter, but concerning only a very limited circle of nations. Within that circle the same principles still apply. Revival can only be obtained through an enlargement of demand. That can only be secured by a credit expansion, and a credit expansion can only be effective if the credit deadlock is broken.

Of the breaking of the credit deadlock from within there is no prospect. The central banks concerned neither possess nor desire the power of buying securities in the open market.

A Capital Programme and the Balance of Payments.

At this point it will be relevant to revert to the subject of a Government programme of capital outlay. We considered this plan above as a device for inducing inflation, and it might be inferred that for a country on the gold standard, where inflation is barred by the linking of the currency unit with gold, a capital programme would necessarily be entirely ineffectual.

But that is not so. Even under the limitations of the gold standard a capital programme does give employment. For the capital outlay may itself modify the balance of payments.

The capital outlay generates additional incomes. But the Government takes, to pay for it, a sum just equal to these additional incomes.[1] What is left to be spent on marketable products is no greater than before. Provided the expenditure of the Government is so planned as not to include any foreign trade products, the balance of payments will remain as before. We may say that the Government through its programme can increase the outlay on home trade products without increasing the outlay on foreign trade products. And, as it is upon the outlay on foreign trade products that the balance of payments depends, incomes can be enlarged without causing an unfavourable balance.

To a country on the gold standard this is a result of some significance. The gold standard precludes a depreciation of the currency, but the programme of capital outlay gives additional employment without any adverse effect on the foreign exchange position. This is so by whatever method the programme may be financed, whether by taxation or by borrowing. But if the method is in any degree inflationary, the inflationary effect must be strictly limited; it must not go beyond the point at which the total of incomes

[1] If inflation be ruled out by the gold standard, the money must be raised either by taxation or by loans subscribed out of savings and therefore out of income.

is increased by the amount of the programme. If it threatens to do so, recourse must be had to deflation.

It follows that the additional employment anticipated from "repercussions," that is to say, that required to satisfy the additional demand of those employed on the capital programme for marketable products, must be ruled out. The additional demand for marketable products would mean the attraction of additional imports, and would cause an adverse exchange.

To say that additional imports can be excluded by tariffs, quotas and exchange control is not to the point. The limitation of imports is *another* device for maintaining parity without resorting to so severe deflation as would otherwise be necessary. It is possible to have both a limitation of imports and a programme of capital outlay concurrently, but we must not attribute to one consequences which are really due to the other.

I have said that the favourable effect of a capital programme upon the balance of payments is the same however it is financed. But here again a certain qualification is necessary. If the money is raised by taxation, the resulting restriction of the taxpayers' expenditure on marketable products may be assumed to be divided in normal proportions between home trade products and foreign trade products. But if the money is raised by loan, there is a presumption (at any rate in a capital-exporting country) that a great part, or even practically the whole, will be diverted from external investment. External investment is in the nature of a *surplus* remaining after the need for investment at home has been satisfied.

If that is so, we may suppose that, when the Government borrows a million for its programme, external investment is reduced by a million. The additional million of incomes may be supposed, for the purposes of illustration, to be spent as to half on foreign trade products and as to half on home trade products. The result will be that external investment will be reduced by a million, and imports will be increased by half a million, and there will be a favourable balance of payments of half-a-million, permitting of a *further* enlargement of incomes.

It should be borne in mind, however, that this further favourable effect is secured at the expense of other countries. It contributes nothing towards a general revival. The true additional employment given by the programme in the international system is limited to the *direct* employment, without the "repercussion."

Effects of Suspension of the Gold Standard.

The suspension of the gold standard, where it has occurred, has brought a fundamental change in the situation. Any country which has suspended the gold standard has become master of its own monetary affairs. It is free to adjust the value of its currency unit to whatever level public policy may require. It can so regulate credit as to enlarge demand to the equilibrium point, and to make industry remunerative and fully employed. But any country that sets out to do so *must* be prepared to see its currency unit depreciate in terms of gold and of foreign currencies. Its internal and external price levels must be kept in equilibrium. And indeed the rise of the external price level is itself part of the process of revival. Once the gold standard is suspended, there is no sanctity about any particular rate of exchange. There is no purpose in limiting the country's freedom and stopping revival half-way by requiring the exchange value of the currency to be sustained somewhere above the equilibrium level.

To exercise this freedom, it is of course first necessary to overcome the credit deadlock. But the suspension of the gold standard may well accomplish this. That was shown both by the experience of Great Britain after September, 1931, and by that of the United States after April, 1933. In Great Britain, it is true, the deadlock recurred. But that was only after some months of a high bank rate and a stringent money market. Probably the deadlock could have been broken again at any time since then by a sudden depreciation of the pound on a considerable enough scale to make a wide range of industry remunerative and active. That once achieved, credit could be regulated

in the normal manner, and the return to equilibrium completed.

In the past twelve months Great Britain has been acquiring great quantities of gold, and it may be objected that a depreciation of the pound would have meant raising the price of gold and so attracting more gold. But that is not so. The attraction of gold was a sign that the purchasing power of the country had not expanded sufficiently to establish equilibrium in the balance of payments, with the existing exchange value of the pound. The purchasing power of the country could be expanded if the Bank of England reinforced its low bank rate with open market purchases. But it is possible that that process might have been delayed by the credit deadlock. A sudden rise in the sterling price of gold would overcome the deadlock, set free the credit system to enlarge the national income, and so restore equilibrium in the balance of payments and stop the inflow of gold.

Competitive Depreciation of Currencies.

What is the obstacle in the way of this course? Why do not all the countries which have abandoned gold proceed straight back to equilibrium and prosperity?

The explanation seems to lie in a peculiarly perverse and wrong-headed view as to the international effects of depreciation.

When Great Britain left the gold standard, deflationary measures were everywhere resorted to. Not only did the Bank of England raise its rate, but the tremendous withdrawals of gold from the United States involved an increase of rediscounts and a rise of rates there, and the gold that reached Europe was immobilised or hoarded. Import restrictions and exchange restrictions in many countries intensified the depression.

The consequence was that the fall in the price level continued. The British price level rose in the first few weeks after the suspension of the gold standard, but then accompanied the gold price level in its downward trend. This

fall of prices calls for no other explanation than the deflationary measures which had been imposed. Indeed what does demand explanation is the *moderation* of the fall, which was on the whole not so steep after September, 1931, as before.

Yet when the commercial and financial world saw that gold prices were falling rather than sterling prices rising, they evolved the purely empirical conclusion that a depreciation of the pound had no effect in raising the price level, but that it caused the price level in terms of gold and of those currencies in relation to which the pound depreciated to fall.

For any such conclusion there was no foundation. Whenever the gold price level tended to fall, the tendency would make itself felt in a fall in the pound concurrently with the fall in commodities. But it would be quite unwarrantable to infer that the fall in the pound was the cause of the fall in commodities.

On the other hand, there is no doubt that the depreciation of any currency, by reducing the cost of manufacture in the country concerned in terms of gold, tends to lower the gold prices of *manufactured* goods. And in the case of Great Britain that tendency is powerful in proportion to the British output of manufactures.

But that is quite a different thing from lowering the price level. For the fall in manufacturing costs results in a greater demand for manufactured goods, and therefore the derivative demand for primary products is increased. While the prices of finished products fall, the prices of primary products rise. Whether the price level as a whole would rise or fall it is not possible to say *a priori*, but the tendency is towards *correcting* the disparity between the price levels of finished products and primary products. That is itself a step towards equilibrium. And there is on the whole an increase of productive activity. The competition of the country which depreciates its currency will result in some reduction of output from the manufacturing industry of other countries. But this reduction will be less than the increase in the country's output, for if there

were no net increase in the world's output there would be no fall of prices.

In consequence of the competitive advantage gained by a country's manufacturers from a depreciation of its currency, any such depreciation is only too likely to meet with recriminations and even retaliation from its competitors. And any country which values its good relations with its neighbours hesitates to resort to what they may resent as an unfriendly act. Fears are even expressed that if one country starts depreciation, and others follow suit, there may result a "competitive depreciation" to which no end can be seen.

This competitive depreciation is an entirely imaginary danger. The benefit that a country derives from the depreciation of its currency is in the rise of its price level relative to its wage level, and does not depend on its competitive advantage. If other countries depreciate their currencies, its competitive advantage is destroyed, but the advantage of the price level remains both to it and to them. They in turn may carry the depreciation further, and gain a competitive advantage. But this race in depreciation reaches a natural limit when the fall in wages and in the prices of manufactured goods in terms of gold has gone so far in all the countries concerned as to regain the normal relation with the prices of primary products. When that occurs, the depression is over, and industry is everywhere remunerative and fully employed. Any countries that lag behind in the race will suffer from unemployment in their manufacturing industry. But the remedy lies in their own hands; all they have to do is to depreciate their currencies to the extent necessary to make the price level remunerative to their industry. Their tardiness does not benefit their competitors, once these latter are employed up to capacity. Indeed, if the countries that hang back are an important part of the world's economic system, the result must be to leave the disparity of price levels partly uncorrected, with undesirable consequences to everybody.

As was explained above (p. 49) currency depreciation and the limitation of imports may be regarded as two alter-

natives open to a country which can no longer endure the strain of maintaining parity by deflation and impoverishment. Currency depreciation itself tends to reduce imports, in that it raises the world level of prices in terms of the depreciated unit. But it at the same time stimulates exports. Unless purchasing power expands, this increase of exports and decrease of imports will bring about a favourable movement of the exchanges and the depreciation will be at an end.

If, therefore, we assume the depreciation to continue, there must be such an enlargement of the national income as will attract imports to balance the increase in exports. Whereas the limitation of imports by tariffs, quotas and exchange restrictions diminishes international trade, currency depreciation tends on balance actually to *increase* it.

The picture of an endless competition in currency depreciation is completely misleading. The race of depreciation is towards a definite goal; it is a competitive return to equilibrium. The situation is like that of a fishing fleet threatened with a storm; no harm is done if their return to to a harbour of refuge is "competitive." Let them race; the sooner they get there the better.

But, it may be asked, *can* all countries effectively depreciate their currencies at the same time? Suppose every country in the world reduced the gold equivalent of its currency unit in the market [1] by 20 per cent. The relative values of any two currencies would remain unchanged. Nothing would have happened except that the value of gold in terms of all currencies would have risen by one-quarter. Gold mining would become more profitable, but that is a secondary matter. The principal result would be that every central bank would get a windfall equal to one-quarter of its gold reserve.

Presumably the windfall would not be left to the share-

[1] That is to say, every country on the gold standard would reduce the legal parity by 20 per cent., and every country already off the gold standard would reduce the value of its unit, as already depreciated in the foreign exchange market in terms of gold, in the same proportion.

holders of the bank, but would be taken over by the Government and deposited by the Government in the bank (or used to discharge external liabilities). All the gold would thus become backing for additional money. If in any instance the windfall was retained by the central bank, it would not at the outset support any additional currency or deposits, but would simply form an addition to the bank's surplus assets, but the strengthened reserve position would encourage the bank to expand credit.

Thus a general and simultaneous devaluation of currency units in terms of gold would tend to bring about an expansion. But it would not in itself offer any new means of resolving the credit deadlock, if the expansion of the assets of the central bank failed to do so. It would miss the special advantage which sudden depreciation gives to a single country in raising the external price level, and so making a large extent of business immediately remunerative.

But in any case the idea of a simultaneous equal devaluation of all currencies is so remote from practical possibility that its consequences are of no more than academic interest. Devaluation by one country often leads to devaluation by others, but for the most part only at intervals.

As each country in turn effects the depreciation of its currency, and enlarges demand in terms of its own currency unit, those which have already done so retain undiminished the advantages they have gained from a similar enlargement. If we regard the foreign exchange market as measuring the relative purchasing power of different currency units in terms of foreign trade products, what is required is the reduction of the purchasing power of each unit in succession. The reduction of any unit, when it occurs, takes the form of a reduction of its value relative to all the others. But when another unit is in turn reduced, that does not mean that the reduction of the former is being undone. On the contrary, both are reduced in purchasing power.

The plan for the creation of an international note issue, proposed in Mr. Keynes's pamphlet, *The Means to Prosperity*, would have consequences not very different from those of a general devaluation. The notes would be treated by all the

participating countries as the equivalent of gold, and would strengthen the reserve positions of all the central banks in much the same way as a general devaluation. But they would have the advantage that the gain would not go to every country in proportion to the gold held, but would be distributed according to a rational plan. In order to break the credit deadlock, to "set the ball rolling," Mr. Keynes would associate his plan with international co-operation in a big programme of capital outlay.

Mr. Keynes's plan, like a general devaluation, may be regarded as a plan for extending the assets of central banks. The same virtue is claimed, though on a more modest scale, for proposals for a return to bimetallism.

Bimetallism would provide a new asset for the central banks to buy in the shape of surplus silver. It may be pointed out, however, that there would be little surplus silver to be bought unless the gold value of silver were substantially raised; while, if it were, that would mean adding to the many troubles of the Chinese an appreciation of their currency and a share of the world depression. The fall in the price of silver, though aggravated by other causes, is partly due to the appreciation of gold.

But all these devices for extending the assets of central banks are quite unnecessary, for there is nothing to prevent the central banks from extending their assets by buying securities. The Bank of England and the Federal Reserve Banks have all the requisite powers. The Bank of France has not; but there is no more prospect either of a new devaluation of the franc, or of the establishment of international gold notes in France, or of a return of France to bimetallism, than of the Bank of France being given power to buy French Government securities. Indeed the last would seem to be the least revolutionary change of the four.

Revival and the Gold Position.

If the deadlock is resolved in one of the great credit systems of the world, the effect tends to spread elsewhere, even to countries which for the time being have not the same

monetary standard. That is well illustrated by the course of events since the American abandonment of gold in April, 1933. Increased industrial activity in the United States meant an increased demand for primary products. In American markets the effect was that the rise in prices of primary products was substantially greater than in the prices of finished products. In world markets the principal effect was a rise in the prices of primary products, with little if any offsetting fall in those of manufactured products. The result has been a quite distinct improvement of business, and there is even some prospect that the deadlock will be broken and the presence of willing borrowers will restore life once more to the credit organism. That applies both to the English monetary field and to that of the gold standard.

So long as revival is progressing faster in the United States than elsewhere, the American dollar must depreciate in terms of other currencies. When American industry regains full activity, the gold standard countries will presumably still be seriously depressed. There should ensue a period in which the gold currencies are depreciating relatively to the dollar. But the rise in the gold value of the dollar will have no adverse effect on American industry, which will remain remunerative and fully employed ; it will be a sign of the fall in the purchasing power of gold itself. It will not be necessary for the gold standard countries to reduce the gold contents of their currency units. When the currency units depreciate *they will carry gold with them*, for there will be no other buyers of gold than the gold standard countries.

That is to assume that there will be no scarcity of gold. A scarcity of gold would only interfere with the progress of revival by inducing the gold-standard countries to restrict credit prematurely. The scarcity would be a *relative* one, relative to their views of the amount of gold they ought to hold.

At the present time the Bank of France holds 82 milliards of gold. Its sight liabilities amounting to 103 milliards require a statutory reserve of 36 milliards. If revival meant expansion of the sight liabilities, more gold might be required. Even that is not certain, for revival would mean an increased

supply of commercial bills and advances. But revival is likely to bring a reduction rather than an increase of sight liabilities. Deposits are still swollen by the abnormally high cash reserves held by the French commercial banks. They are not quite so high as at the end of 1931, but they are certainly several milliards above what is required or what the banks themselves would choose to hold under normal conditions.

The note issue at the December maximum in 1932 was 85 milliards. That compares with 68 milliards at the end of 1929. The latter figure was still short of normal, but even if full allowance be made for that, it seems likely that the circulation required to support the price level and the national income of 1929 would be substantially less than 85 milliards. A higher circulation coexists now with a national income of, say, 175 milliards than would be needed to support a national income of 250 milliards That merely illustrates once again the low velocity of circulation characteristic of a period of depression. The low velocity is not wholly or even mainly due to hoarding; it is rather due to the accumulation of idle working capital.

When revival comes in France, it is likely therefore that the liabilities of the Bank of France will contract rather than expand. If at the same time commercial discounts and advances increase, there should be a big release of gold.

The same is true of Holland, Switzerland and Belgium, whose total gold holdings, even after recent substantial withdrawals, still exceed £200,000,000, in comparison with £100,000,000 in May, 1931, and £80,000,000 at the end of 1928. Substantial amounts of gold, amounting to scores of millions of pounds, are also held in private hoards.

There have, it is true, been heavy losses of gold from some countries, particularly Germany, Japan, Argentina, Brazil and Australia. Their losses since 1928 have amounted in the aggregate to £300,000,000. But it is probable that the greater part of this loss will never have to be made good. Both the United States and Great Britain have ample stocks of gold.

On the whole, there is good ground for thinking that the

existing world stock of monetary gold is more than sufficient to sustain the price level and the structure of incomes that existed in 1928, and that the world can return to the price level of that year [1] and the gold contents of currencies as they were in that year, without encountering any difficulty from a scarcity of gold. That does not mean that the relative values of different currencies require no modification. It is possible that some changes would have to be made. For example, it is possible that the pound ought to be reduced in value in terms of the French franc. It is possible also that the general establishment of minimum wages and maximum hours in the United States (if made permanent and not imitated elsewhere) may require a relative reduction in the gold contents of the dollar.

M. Rist expresses doubt as to whether such a recovery of prices in terms of gold can take place : " All the previous history of prices makes the renewed rise of prices by 30 or 35 per cent., that would be necessary to attain the levels prevailing before 1929, absolutely improbable " (*Essais Economiques et Monétaires*, p. 161). But the situation at the present time is such as the world has never seen before. A rise of prices of that order of magnitude is positively required to restore equilibrium with wages and debts. Indeed, the true rise required is actually greater. Price index numbers do not give an accurate picture of the situation, because they include commodities of which the prices have been kept up by high costs and restricted output. Apart from such cases, it is hardly an exaggeration to say that prices must be *doubled*.

But a mere appeal to past experience does not in itself throw doubt on the possibility of accomplishing this. The recovery from the cyclical depressions of the past has usually come to an end when prices have risen some 20 per cent. or less from the minimum. But then on those occasions the rise actually exceeded what was necessary for equilibrium

[1] This requires qualification in that real costs of production have been reduced in many directions since 1928, and if the income structure is to remain unchanged, the price level ought to fall in proportion to costs.

and it was brought to an end by the scarcity of gold. There was no reason why the rise should not have continued had the supply of gold permitted. Inflationary rises of prices can go on indefinitely because the limiting effect of gold is absent.

The present French financial and economic situation urgently requires a rise in the world price level. Agricultural protection has been raised to unprecedented heights in order to shelter the extensive and influential agricultural interest from the collapse of the world price level. An endeavour is being made to maintain the price of wheat at 115 francs a quintal at a time when it is necessary to dispose of an exportable surplus at somewhere about 45 francs (the import duty being 80 francs). The consequent high cost of living precludes any great reduction of wages, and the export industries suffer. The French national income has fallen about 30 per cent. since 1930. That is not so great a fall as in some other countries, but it is great enough to make the balancing of the budget almost unattainable. M. Rist, writing in 1925 (*loc. cit.*, p. 42), contended that if the franc were stabilised at 15 to the dollar, the fixed charge on the budget for debt and pensions would amount to 7 milliards of pre-war gold francs, whereas the national income at that time was 50 milliards, *une charge intolérable.* The franc was stabilised at 25 to the dollar, and the gold value of the debt charge and pensions became 4½ milliards of pre-war francs. But 4½ milliards now are the equivalent in purchasing power of more than 7 milliards in 1925, and the national income has shrunk from 50 milliards to 35. The charge has once again become *intolérable.* The calculations of M. Rist and every one else have been upset.

The measures of extreme protection adopted by France have kept up the national income to a substantially higher figure than would otherwise have been compatible with the maintenance of gold parity. That has made the budget trouble somewhat less acute. But it has aggravated the troubles of other gold standard countries. These other countries have been led in turn to restrict imports. Each is resorting to desperate measures, in terror lest its currency

depreciate relatively to the others. This nightmare of competitive appreciation may be contrasted with the dreaded competitive depreciation. Both alike have limits. That of the competitive depreciation is reached when industry all over the world is remunerative and fully employed, and the disparity between wages and prices and between prices of primary and manufactured products has disappeared. The limit of competitive appreciation is reached when international trade has completely ceased, and default has occurred on all international obligations.

The gold standard countries regard their régime of competitive appreciation as the one refuge of the world from "chaos." Such a view is only possible because they think of a currency linked to gold as in some way different in kind from one that has no metallic basis. In reality it is among the gold currencies themselves that chaos prevails, rather than among the paper currencies. The change in the purchasing power of the currency unit has been greater among the former than among the latter. And though fixed parities are preserved between one gold currency unit and another, that is only secured by a devastating interference with the international trade for the sake of which fixed parities are desired. Fixed parities have been maintained in many important cases between inconvertible paper currencies without any such interference.

Monetary stabilisation *in terms of gold* is no stabilisation at all so long as gold itself remains unstable.

The instability of foreign exchange rates, whether between paper currencies and gold or between one paper currency and another, does undoubtedly interfere with the smooth working of international trade. That is mainly because it interferes with international short-term financing.[1] But the instability of foreign exchange rates is directly due to the appreciation of gold, which has forced more than half the world off the gold standard, and to the appreciation of the pound and the dollar themselves, which, though less than that of gold, is great enough to make it for many

[1] See my *Gold Standard in Theory and Practice*, pp. 198-203 (3rd edition).

countries impossible to maintain fixed parities with either. Moreover, the appreciation of the pound, the dollar and gold has resulted in a complete upset of monetary equilibrium in the countries using them as currencies; their future purchasing power cannot be foreseen till the conditions of the restoration of monetary equilibrium have been settled; and only then will other countries be able definitely to link up their currencies with one or other of these systems, without running the risk of future departures from equilibrium.

International Movements of Money.

Whenever a country sets out to regulate the value of its currency in the foreign exchange market, it has to deal not only with what may be called the commercial demand for foreign exchange, arising out of current transactions, but with a financial demand, particularly with movements, from one centre to another, of balances seeking temporary investment. At a time of monetary quiescence, when an international gold standard is working smoothly, these movements of balances give little trouble. And this is equally so when the gold standard is suspended and rates of exchange are left to find their own level in a perfectly free market.

But when the monetary authorities interfere with the market, by buying or selling exchange at some rate other than that which a free market would establish, big movements may result. Holders of liquid funds will hasten to take advantage of the difference between the rate so fixed and what they believe to be the rate indicated by market conditions; they will speculate against the monetary authorities.

That may occur when the gold standard is still in operation, if the market expects it to break down. Or it may occur when the gold standard is suspended, if the monetary authorities seek to keep the exchange value of the currency either up or down.

An effort to keep the value of the currency unit up may be defeated by the exhaustion of reserves. But if the value aimed at is not too high for monetary equilibrium, it is not

difficult to support the pegging of the currency with a sufficient credit restriction. An outflow of liquid funds from the country will then bring its own remedy (possibly after an interval of depreciation) through a scarcity of currency and bank credit.

An effort to keep the value of the currency unit down may lead to a great inflow of foreign money. That cannot prevent the effort from being successful, for the central bank has only to buy foreign exchange to a sufficient amount to balance the inflowing foreign money. When the market is satisfied that the value of the currency unit is being successfully kept down, and no profit is to be anticipated from holding it for a rise, the foreign money will be withdrawn, and the foreign exchange accumulated against it will be available to send it back without causing any disturbance to the rate of exchange.

There is some danger, however, that *before* the foreign money is withdrawn, there may be such an expansion of credit as will cause an adverse balance of payments on current account, so that the reserve of foreign exchange will be dissipated.

These speculative movements of balances from one currency to another sometimes make the regulation of the foreign exchanges a delicate operation. A country may suffer from movements originating entirely abroad, for which its own monetary policy has no responsibility. There may, for example, be a sudden outflow of money from the gold-standard countries due to a fear that the strain of remaining on the gold standard is too great ; some of the money may seek refuge in paper-standard countries and tend to force up the exchange value of their currencies. But if an appreciation of their currencies is contrary to their policy, they will keep them down by buying exchange or possibly by buying gold. At a time when the commodity value of gold is excessively high, and may be expected to fall in the near future, the buying and holding of gold or gold currencies is likely to result in loss.

All these difficulties and dangers arise from the precarious position of countries which are endeavouring to maintain

their currency units far above the equilibrium value. Whereever that is so, people will from time to time distrust the capacity of the country to continue to stand the strain and will speculate on a breakdown. The remedy is to be found in a general abandonment of these futile efforts and a return to monetary equilibrium.

The American Situation.

The best hope of escape from the depression at the present time is in the inflationary measures that have recently been adopted in the United States. Since June these measures have been associated with the policy of minimum wages and maximum hours under the National Industrial Recovery Act, passed just before Congress adjourned in that month.

Minimum wages have been advocated principally as a device for expanding the consumers' demand to keep pace with increasing production, and maximum hours as a device for spreading the available employment over a greater number of individuals.

Fears had been expressed that the increase in production that started with the abandonment of the gold standard in April, 1933, was not being accompanied by a corresponding increase in consumption. Statistics of retail sales in June were disappointing. Was there not a danger that the increased production would merely accumulate unsold stocks ?

Such fears had little foundation. The revival of productive activity was bound to be accompanied to some extent both by an accumulation of stocks of finished products and by an accumulation of unspent money in the hands of consumers, whose cash resources had been reduced by distress. Some lag of retail demand might reasonably be expected, and need cause no misgiving. Production generates incomes, and the extent to which incomes will be held up unspent is limited.

But even if there were a lag of consumption, it would be a mistake to try to correct it by an artificial rise of wages.

Demand does not emanate from wages alone, but from incomes of all kinds, including profits. It is true that a smaller proportion of the demand arising from profits is applied to consumption than of that arising from wages. But the demand that is not applied to consumption composes the savings available for investment. At a time of depression investment falls off more than consumption, and an increase of profits is required to restore it.

If a rise in wages meant nothing more than a rearrangement of demand, it would not retard revival, though it might delay the restoration of the normal relations between the industries producing consumption goods and those producing capital goods. But in so far as wages encroach on profits, the tendency of the expansion of demand and the rise of prices to make industry remunerative is interfered with. If industry is not remunerative it will not be active, and revival might be completely cut short. The rise of wages tends to counteract the efficacy of inflation as a means of promoting revival. Inflation has to go further in order to achieve equilibrium.

It may be that the effect of the Industrial Recovery Act may not go further than to restore wages approximately to the level at which they were in 1929. If inflation is to be carried to the point at which the conditions of 1929 are restored, no harm will be done.

The more important part of the increase in wages would seem to be, not in the establishment of minimum weekly ratios, but in the raising of the *hourly* rates for work-people whose weekly hours are to be heavily reduced. The reduction of hours *may* turn out to be justified. We have seen above (pp. 88-90) that a reduction of hours is one of the natural accompaniments of technological progress. But that is a matter quite independent of the trade depression.

The idea of spreading the available employment over a greater number of individuals is based on an acquiescence in depression, a want of faith in recovery. If inflation is not to be pushed to the point at which the volume of demand ensures full employment for whatever the normal weekly hours of the future may be, the policy of curtailing hours

becomes simply one more device for maintaining the gold value of the currency unit by the impoverishment of the people. To curtail hours is to curtail production. There is less wealth to divide between profits and wages. The loss cannot be imposed wholly on profits, because adequate profits are the essential condition of productive activity.

Whenever productive power increases, the gain of the work-people accrues partly in increased real wages and partly in reduced hours. If the reduction of hours is carried too far, that means a sacrifice of real wages.

Suppose that the hourly rates of wages are restored to what they were in 1929. If hours of work were likewise the same as in that year, the national income of the United States might once again, through a return to monetary equilibrium, be raised to $85,000,000,000. If hours of work were so reduced as to diminish output by 10 per cent., the national income would be only $76,500,000,000. Costs [1] being assumed unchanged, the exporting power of the country at a given world price level in terms of dollars would be unchanged. But the demand for imports would be diminished in proportion to the diminished national income. Equilibrium would therefore require a higher exchange value of the dollar.

On the other hand, it may be that technological progress will allow so great an improvement in productivity that a national income of $76,500,000,000 will represent a greater output of commodities than that of $85,000,000,000 in 1929, and that the shorter hours represent just that balance between leisure and resources which, from the point of view of the work-people, is both desired and desirable.

That is possible, but whether it is so or not we have no means of judging till the revival of demand has shown what industry is capable of under equilibrium conditions. There is, perhaps, something to be said for returning to productive

[1] The effect of a reduction of hours on output is full of complications. The workman's productivity is likely in many cases to fall less than in proportion. In some industries, on the other hand, an inconvenient reduction of hours interferes with organisation and increases costs.

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activity with hours admittedly shorter than normal, and effecting adjustments thereafter by increasing hours to whatever extent the work-people desire. It is probably easier to increase hours and earnings at any time than to reduce them, because a sudden reduction of income is sure to cause hardship, even if the increased leisure gained is really more than worth the sacrifice.

The Industrial Recovery Act, besides the sections dealing with the "codes of fair competition" which regulate wages and hours, includes a programme of public works representing an expenditure of $3,300,000,000. It is not necessary to add anything to what has been said in regard to this policy except (1) that it must be a long time before the programme is put into full operation, whereas the index of manufacturing production rose under the influence of the depreciation of the dollar from 57 in March, 1933, to 99 in July, and (2) that the deficiency in the national income to be made up was some $45,000,000,000, and the contribution of a programme of $3,300,000,000, which must be spread over more than one year, is almost negligible.

In fact, three months after the Act was passed, only about one-third of the total programme had been approved, and it was estimated that only 15,000 men were actually employed upon it.[1]

The various proposals contained in the National Industrial Recovery Act have been to some extent inspired by the notion that a revival originating merely in a depreciation of the currency unit is in some sense artificial or unsound, or at any rate insecurely founded. So long as the depreciation is based on nothing more substantial than the opinion of the market, the revival is insecurely founded in the sense that the depreciation may be interrupted or even reversed by a change of opinion.

The depreciation was, in fact, interrupted, and with it the revival, between the middle of July and the middle of September. Had the Administration and the Federal Reserve Banks decided to reverse the depreciation and restore

[1] See the *Economist* of 23rd September, 1933, p. 578.

the dollar to its gold parity, and had the market been satisfied that these authorities had both the will and the power to carry the decision into effect, the dollar would at once have appreciated accordingly, and the whole of the ground gained by the revival since March would have been lost.

But so long as the depreciation of the dollar is maintained (subject, of course, to the appropriate correction for any change in the purchasing power of gold) the corresponding degree of economic activity will continue. The increased orders given to industry may be speculative in origin, but the increased incomes and demand generated are real. As soon as increased sales give rise in turn to yet further orders, the activity is placed on a firm foundation.

This does not apply without qualification to primary products. The increased demand for primary products arising from increased industrial activity is real enough. But the corresponding rise of price may easily be pushed too far by speculators.

The primary producers may then over-estimate their own prosperity. On the other hand, the exaggerated price level both reduces the profits of the manufacturers who use the primary products, and slows down sales. When speculation subsides, and prices are brought down within reasonable limits, the reaction is not all loss, and there is no reason why it should interfere with revival in other directions.

Conclusion.

Revival means the resuscitation of demand. Demand in any country is expressed in terms of the country's own currency unit. It is a matter within the country's own control, and does not require international co-operation. Each country separately can find the way out of the trade depression by so adjusting the purchasing power of its currency unit as to secure equilibrium between prices, wages and debts.

International action is still required within any group of countries which maintains a common monetary standard. That applies both to those remaining on the gold standard

and to those linked to the pound sterling, or to any other paper standard. But in any country forming part of such a group the need for international action is self-imposed. It has the power to modify the value of its currency unit, but chooses so to exercise that power as to link the value to gold or to another country's currency.

Revival, to be complete, requires an enlargement of demand in all countries. So long as some countries remain on the gold standard and the value of gold remains unduly appreciated, traces of the depression will remain. Not only will it continue in the gold-standard countries themselves, but there will still be disparities among price levels and in the flow of profits, savings and investment. But if the appropriate enlargement of demand were attained in the United States, in the British Empire, and in other countries all over the world, which have severed the link with gold, the remaining disparities would be very greatly diminished.

Moreover, revival on that scale could not fail to affect the position in the gold-standard countries themselves. There would no longer be any credit deadlock in the paper-standard countries; markets would be working freely. That being so, credit regulation would soon begin to work normally in the gold-standard countries, so that low discount rates would exert their natural influence in the direction of revival.

And it is not impossible that a further depreciation of the paper currencies in terms of gold, involving intensified industrial competition, would lead to the abandonment of the gold standard even by the countries still adhering to it. That would be a short-cut to monetary equilibrium. It would at once become possible for every country to attain the requisite enlargement of demand. And, that accomplished, the way would be open to the permanent stabilisation of the purchasing power of all currency units in international markets, to the establishment of fixed parities so calculated as to be consistent with relative purchasing power, and to the re-introduction of the gold standard.

If *all* countries suspend the gold standard, there will no longer be any monetary demand for gold except for purposes

of hoarding. And even hoarding is likely to be diminished rather than increased by such a development. The hoarding of gold occurs in countries which are still on the gold standard, but which are expected not to remain so. The central bank continues to discharge its obligation of supplying gold in exchange for money at par, and people take advantage of the opportunity to acquire gold, in the expectation that, when the strain of maintaining gold parity at last becomes intolerable, they will obtain a premium on the gold. Once the gold standard is actually suspended, this opportunity is at an end. The price of gold is settled in a free market, and there is no longer any presumption that a buyer at that price will gain a profit in the future. Experience has recently shown in India and less conspicuously in England that when gold can be sold at a premium the hoards tend to be dispersed.

Thus a universal suspension of the gold standard would involve an immediate cessation of all demand for gold except for the very limited industrial consumption. A collapse of the value of gold would be started. But its value could not fall far, so long as the suspension of the gold standard means (as it usually does) no more than a suspension of the sale or of the export of gold. For the obligation of the central bank to *buy* gold at a fixed price would soon become operative in some country or other. There will always be at least one country whose currency is not at a discount (in terms of old parities) with any other, and that country will be a buyer of gold. Since an inflow of gold would tend to depreciate the currency of the country in question, until some other country becomes a buyer, the gold standard might re-establish itself in one country after another, and so become the accepted international standard again.

A mere drift back to the gold standard, without any provision for its better working in future, would be very undesirable. But to discuss measures for avoiding future trade depressions would be to go beyond the bounds of my present subject.

As soon as any country which has been maintaining gold parity by means of import restrictions and exchange restrictions resorts to the alternative of currency depreciation, it

can relax the restrictions. When it has actually attained monetary equilibrium, it can abandon the restrictions altogether. Without that condition, international agreement for the suppression of exchange restrictions is bound to be abortive; with it, international agreement is not even necessary.

It seems paradoxical to say that currency depreciation is also the pre-requisite condition of exchange stabilisation. Opinion in the gold-standard countries looks for exchange stabilisation as the first step towards equilibrium. But no country can afford to link its currency unit unconditionally to that of another (whether on gold or not) which is out of equilibrium, for there is no presumption that the change of value required to restore equilibrium in the latter will be equally appropriate to the former. A provisional stabilisation linking two currency units in their progress towards equilibrium may be tolerable, but a provisional stabilisation does not eliminate exchange risk. Definitive stabilisation is only really practicable *after* equilibrium has been actually attained in both the countries between which the rate of exchange is established.

Currency depreciation means essentially a rise of prices to the equilibrium level. Nevertheless, the end to be attained is more properly described as an enlargement of demand than as a rise of prices. A rise of prices is, no doubt, a necessary condition of the enlargement of demand, for, if incomes are to expand, production must become remunerative. A rise of prices is likewise an inevitable consequence of the enlargement of demand.

But a rise of prices might be induced, without any enlargement of demand, by a restriction of production. That is what is meant by raising prices by other than monetary means. There may be good economic grounds for restricting the output of certain products. But that means sacrificing employment to assist profits. And to seek a rise of prices through a *general* restriction of production would be to treat the problem of poverty in the midst of plenty by eliminating the plenty instead of the poverty

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